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Site Manager User Manual

Site Manager

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1 Welcome to Site Manager

Basic guidelines and best practices described in this section can help maximize your Site Manager experience. Following these guidelines and educating your staff about these items can help minimize times when the system may seem slow and improve throughput of activities.

1.1. Point Data

There are three basic ways to show point data in Site Manager. Select the one that is applicable to what you want to do and understand the impact that it may have on others and display speed. These are listed from the least to most potential system impact:

1. Graphing. Reads historic data from previously collected data into a known layout. **Least system impact.**
2. Real-Time Graphing. Gets data from the controller real-time into a known layout.
3. GS Screens. Gets data from the controller and formats/maps it into a dynamic format. **Most system impact.**

1.2. Export

The Excel export function is intended for "small" amounts of data. It is not optimized to download the entire contents of your database. Exporting more than 64,000 rows of data will result in an Excel error and in our experience exporting more than 30,000 rows may affect system performance to the point of impacting user login ability (system out of memory). For a log export, be aware of the number of points selected and the time interval of the point logged to estimate the number of Excel rows that may be downloaded.

This formula can be used to estimate the number of Excel rows that may be generated:

Expected number of Excel rows = Points x Samples per Hour x Number Hours to Download.

1.3. Scheduled Activities

Scheduled Activities run in the background but use the same system resources as on-demand activities (user screens). Due to these shared resources we recommend that no scheduled activities are configured for every site in an enterprise (for example, log retrieval, back-ups, setpoint broadcast). It will consume all available system resources and will likely run beyond the 24 hour maximum.

If there are more than 200 sites in your enterprise, it is our recommendation that this activity is separated into smaller batches and staggered for time so they are not executed at the same time. This strategy will help make sure system resources are available for everyone and your submitted activities will complete as you expect.

Use the below calculator for a high level estimate of how long a log retrieval may run:

This table assumes a Dell "Poweredge" class server of two processors and 4 GB memory with a database that is regularly maintained and a 5-6 MB Internet line speed.

Number of Connections	100	
Number of Sites in the Activity	11	
Number of Units per Site in the Activity	6	
Number of Points Per Unit	225	
Approximate Log Retrieval Time Including Sites, Units, Points, Connections.	6.5	Hours

Table 1-1 *- Log Retrieval Length Estimate*

1.4. Connections to a Site

There are several factors that contribute to how many concurrent connections can be established in the Site Manager software. Examples of connections are a GS screen, Log Retrieval, and backup of controllers. The server configuration (CPU, memory) and any other activities and features being run in the system (log retrieval, graphing, etc.) all contribute to the performance of the overall system. In our experience

a standard Site Manager environment will support 40 concurrent connections without experiencing slowness of the user interface or activity performance. Above 40 concurrent connections may experience slowness of the user interface experience. Above 80 concurrent users may not allow incremental activities in the system.

1.5. GS Screens

Each GS screen consumes an “outbound connection” to a controller. There are a limited number of outbound connections possible, as described in the “Connections to a Site” section. This means that keeping a GS screen up and active (such as a store manager accessing for case temperatures) consumes a connection until the user moves off the screen. Understanding the ramification of this and how it will affect the speed at which values display and the response time of other activities that need access to the site can help minimize times when the system may seem to be performing slowly.

2 Overview

2.1. What Site Manager Can Do

Site Manager helps you manage and monitor site information and activities by giving you fast, remote access and intuitive navigational tools.

It also allows users to gain immediate access to data for performing and configuring site activities for superior task control and site management.

Get your data fast and accurately by:

- Restoring setpoints
- Viewing activity history
- Finding activities that are pending
- Backing up site information
- Refreshing units
- Creating a history of an application's inputs and outputs
- Executing point tasks
- Remotely logging into a unit using Terminal Mode technology
- Creating and designing your own floor plans
- Viewing Historical Advisories
- Receiving Live Advisories
- Configuring backups and other activities
- Broadcasting Setpoints
- Scheduling Activities

2.2. Basic Concepts

Using the Site Manager user interface, you can log in, log out, backup and restore sites, add, edit, delete, maintain sites and control systems, view all activities on a status page, access help files, and access log information in the controller depending on licensing and how privileges are set for each user. Navigate through Site Manager by using the navigation tree, which comprises four levels, or "nodes": Directory, Site, Control System, and Unit, and use the **Search** option (see **Section 2.2.1., *Search Criteria***) for locating items in Site Manager.

Site Manager features include:

- Site Creation
- Basic Site Management (navigation tree view, grouping of sites, site visibility)
- Backup/Restore (backup all sites, daily schedules backup)
- TCP/IP Connectivity Only
- Historical and Live Advisory Views
- Terminal Mode (viewing the front panel remotely)
- Data Acquisition (log retrieval/archiving, graphing, export to spreadsheet)
- User Management (user access, admin functions, site security, ability to limit user operations)
- Schedule Activities
- Firmware Update
- View GS Screens
- Export Setpoint File

2.2.1. Search Criteria

A search can be performed by entering criteria into the **Search** field on the main window (see **Section 2.5., *Site Manager Interface*** for its location).

Searches can be performed for directories, sites, control systems, units, applications, points, service providers, users, menus, and help items.

An attempt is first made to match ALL words searched for. If no results are returned, alternative word suggestions are provided.

Twenty (20) results are shown per page. **Prev** and **Next** links appear and show previous and next pages. Search results appear based on how close they match the criteria entered.

Directory

To search for a **directory**, the following criteria can be entered: Name of directory, city, state code, state name, country code, country name.

Sites

To search for a **site**, the following criteria can be entered: Name of site (numerics are supported: for example, you can search for "Store Name 10", even if the actual name is "Store Name 00010"), city, state code, state name, country code, country name.

Control System

To search for a **control system**, the following criteria can be entered: Name of control system, protocol, IP Address, site alias.

Unit

To search for a **unit**, the following criteria can be entered: Name of the unit, type, firmware version.

Application Type

To search for a **application type**, the following criteria can be entered: Name of the application type.

Application Instance

To search for a **application instance**, the following criteria can be entered: Name of the application instance.

Point

To search for a **point**, the following criteria can be entered: Name of point.

Service Provider

To search for a **service provider**, the following criteria can be entered: Name of the service provider, e-mail, phone, city, state code, state name, country code, country name.

User

To search for a **user**, the following criteria can be entered: Name of the user, user's role, first name, last name, e-mail, display name, username.

Menu

To search for **menu**, the following criteria can be entered: Menu names.

Help

To search for **help**, the following criteria can be entered: Help contents.

2.2.1.1. Tips for Narrowing Your Search Criteria

You can generally search for the entity type by just typing it in. For example, if you search for **site 120**, a list of sites with 120 in its name will be returned. Searching for **Store 120** will also return similar results. In addition to this feature, you may narrow down the search more specifically by using narrowed criteria.

You may prefix a word with a scope to narrow it down. The prefix must be followed by a colon (**:**) and then the search word. For example, **site:Robert** - this criteria will return sites that have Robert in the site search scope, but not directories, users, service providers, or control systems that have Robert in their search scopes. ***Table 2-1*** lists the allowed prefixes.

Prefix	Search Scope
dir	limits searches to directories
site	limits searches to sites
cs	limits searches to control systems
service provider	limits searches to service providers
user	limits searches to users
name	limits searches to names of entities
city	limits searches to city names
statecode	limits searches to state codes of entities
statename	limits searches to state names of entities
countrycode	limits searches to country codes of entities
country	limits searches to country names of entities
help	limits searches to help items
menu	limits searches to menu items
role	limits searches to role name
firstname	limits searches to first name of entities
lastname	limits searches to last name of entities
email	limits searches to e-mail addresses
display name	limits searches to display name of entities
unittype	limits searches to unit types

Table 2-1 *- Allowed Prefixes to Narrow Down Search Criteria*

Prefix	Search Scope
revision	limits searches to unit version
protocol	limits searches to protocol names
ip	limits searches to IP addresses

Table 2-1 *- Allowed Prefixes to Narrow Down Search Criteria*

NOTE: A prefix cannot be used with another. For example, the following is not supported: service provider:name:Robert

2.3. Quick Start

2.3.1. Overview

In this section you will find step-by-step instructions on how to log in to Site Manager, set up the navigation tree, user access, and communication information. From the navigation tree you can connect to controllers, set up directory, site, control system, and unit information.

2.3.2. Supported Browsers

Note that IE 7 and above and the latest version of Firefox (off the Firefox Web site) are the supported browsers. (IE 6 is supported for viewing GS screens only.)

2.3.3. Launching Site Manager

To begin using Site Manager, open a Web browser (IE 7 and above and the latest version of Firefox (off the Firefox Web site) are the supported browsers. IE 6 is supported for viewing GS screens only):

If running the same computer on which Site Manager was installed, type **http://localhost/emerson** inside the browser field. If running the program from another computer, use the machine name or IP address instead of **localhost**. The Site Manager Enterprise program will open.

You can begin using Site Manager by:

- creating a directory structure
- setting up users (optional)

2.4. Login/Logout

2.4.1. Login

The login page is the first page that appears on your web browser (***Figure 2-1***). Enter your Login ID and password into their respective fields (the **Password** field is case sensitive) and press the **Login** button or press **Return** on your keyboard.

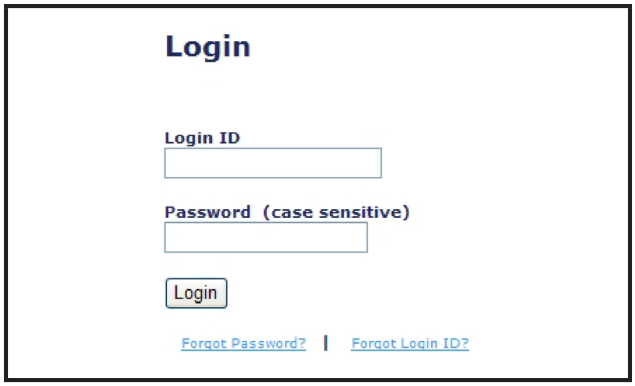


Figure 2-1 *- Login Page*

Once your login has been validated, you will be taken to the Home page where the page is made up of the navigation tree and main information window.

NOTE: For first-time users using the default login credentials, it is strongly recommended that you rename the Login ID and change the password as soon as the program is installed and running so that duplicate login names and passwords do not occur.

First-time users will be presented with the license agreement window. The "**I Agree**" button must be clicked in order to begin using the application.

To retrieve a password that has been forgotten, click on the **Forgot Password?** link to open a special ID window (***Figure 2-2***) where you can enter your login ID and have your password sent to the e-mail address associated with your login ID.

Figure 2-2 - *Forgot your Password? Window*

1. Enter your valid login ID and click **Send**.
2. Your password is changed to a random password that consists of 8 characters when the ID is entered.
3. The changed password will be sent to the e-mail address associated with your login ID.
4. Site Manager will show an information (***Figure 2-3***) to let you know that an e-mail was sent containing new password information and redirects you to the Login screen after 5 seconds.

Figure 2-3 - *New Password Confirmation*

To retrieve a login ID that has been forgotten, click on the **Forgot your Login ID?** link to open a special ID window (***Figure 2-4***) where you can enter your E-mail Address and have your Site Manager Login ID sent to the e-mail address associated with your login ID.

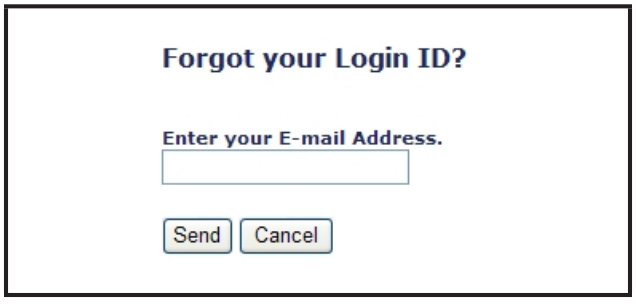


Figure 2-4 - *Forgot your Login ID? Window*

1. Enter your valid e-mail address and click **Send**.
2. Your login ID(s) will be sent to the e-mail you entered.

NOTE: If no e-mail address was assigned when your user profile was initially set up, you will be shown a message stating that there is no e-mail address associated with your Login ID. Contact your IT administrator.

If you are unable to log in, check the following:

- Incorrect ID/Password combination was entered
- Login ID has expired
- Case sensitivity was not observed when entering password

2.4.2. Logout

To log out at any time, click **Logout** located at the top right corner of the main window(***Figure 2-5***):

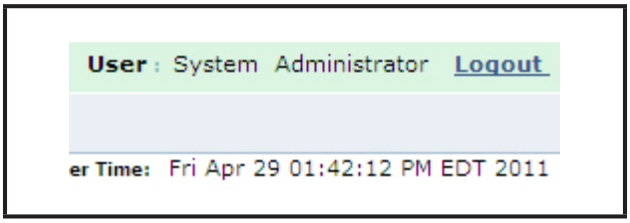


Figure 2-5 - *Logout link*

NOTE: You will be logged out when Site Manager is idle for a set amount of time (determined by the administrator). Click the browser Refresh button to automatically log out and return to the login screen.

2.5. Site Manager Interface

The Site Manager page (***Figure 2-6***) is where you will find the navigation tree, navigation window, menu bar, and the main window.

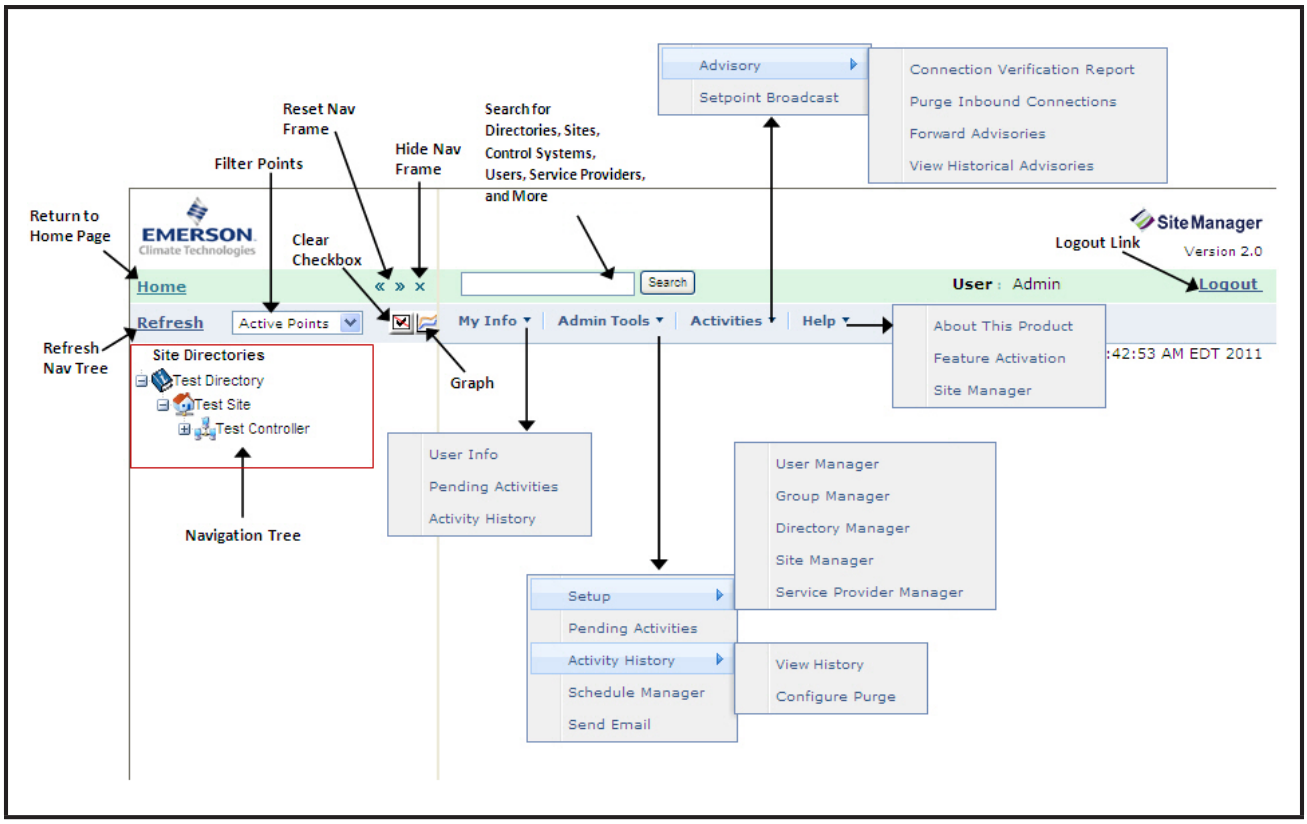
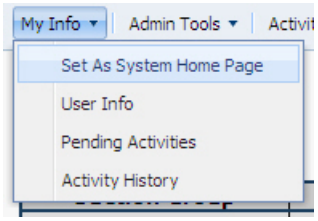


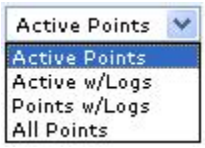
Figure 2-6 - *Site Manager Interface Page*

The following are the window menu and tools found on the page:

- **Home** - System Home returns you to the main page or to a customized location that can be set on the **My Info** menu:



- **Refresh** - Refreshes the navigation window. If your session has timed out, it will return you to the *Login* page.
- **Filter Points** - Allows you to display different point views in the navigation window. Select from the drop-down list for the appropriate point view.



  - *Active Points* is the default each time the user starts up the browser and will show all configured points in the controller.
  - *Active with Logs* shows active points that have a controller log available.
  - *Points with Logs* shows points that have a controller log available.
  - *All Points* shows all possible points for an application instance, whether a point is configured or not. An icon will appear next to the point if the point has a log.
- **Navigation Tree** - The main descending "tree" view

of all directories, sites, units, and control systems.

- **Navigation Window** - The main window of the navigation tree.
- **Hide Navigation Frame** - Collapses or hides the navigation window from view, allowing for maximum viewing room of the main window. Click on the Site Manager icon adjacent to the Search field to show the navigation window.
- **Reset Navigation Frame** - Restores the navigation window to its original size after being collapsed.
- **Clear Checkboxes** - Clears all point checkboxes in the navigation tree.
- **Graph** - Graphs the selected point.
- **Refresh** - Refreshes the navigation window. If your session has timed out, it will return you to the *Login* page.
- **Main Window** - The main workspace window of Site Manager.
- **My Info** - Displays user-related information.
- **Admin Tools** - Displays administrator-level features such as setup, pending activities, activity history, schedule manager, and send email.
- **Activities** - Displays menus for various activities such as Advisory and Setpoint Broadcast.
- **Help Menu** - Displays the menu for the online help and feature activation page. Depending on user settings, click **Site Manager** to open Site Manager Online Help.
- **Advisory Alert Icon** - When an advisory has been received, the alert icon will display on the interface depending on the user's permissions. Users can see the alert icon from anywhere in Site Manager. Click on the alert icon to go to the Historical Advisory View page and see the advisory history.
- **Search** - Find directories, sites, control systems, users, service providers, and more by entering your search criteria in the field. For more information on performing searches in Site Manager, refer to **Section 2.2., *Basic Concepts***.
- **Logout** - Logs you out of Site Manager.

2.5.1. Navigation Tree

The navigation tree is located on the left-hand side of the screen inside the navigation window and is the first screen the user will see.

The navigation tree comprises four levels: Directories, Sites, Control Systems, and Units. The navigation tree will load directories, sites, control systems, and units. The applications are located next to the box icons, with any application instance listed underneath the box next to the application instance icons. Application instance are user-defined and can be of one or more in quantity.

NOTE: See Section 5, Navigation Tree for more information about the Site Manager navigation tree.

2.5.2. Navigation Window

The navigation window comprises the navigation tree (located on the left-hand side of the screen) and is the first screen the user will see once logged into Site Manager.

The **Home** button is located under the logo and will always take the user back to the Home page.

Click the "**x**" (**Hide Nav Frame** button) to minimize the navigation window so only the main window can be seen. Click the **Reset Nav Frame** button to size the navigation frame window back to the default. « »

Click the **Show Nav Frame** button to maximize the navigation window again (visible after the navigation window is minimized).

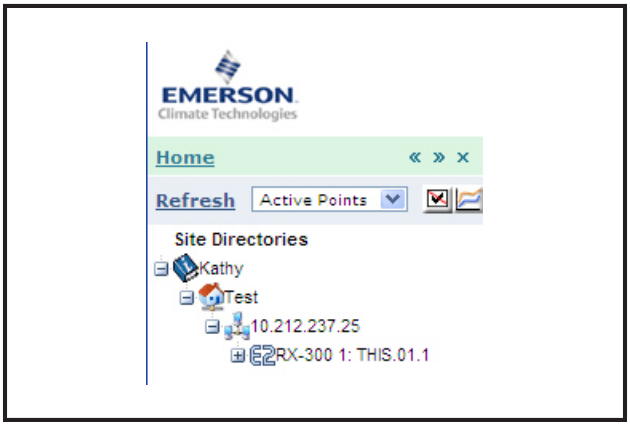


***Figure 2-7** - Navigation Window*

2.5.3. Menu Bar

Depending on licensing and the assigned user level, the menu bar gives you access to menu items such as Pending Activities, Activity Histories, Groups, and online help:

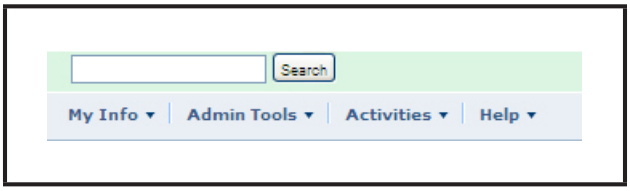


Figure 2-8 *- Menu Bar*

- To access your Pending Activities and your Activity History, click on **My Info** for the drop-down menu.
- To access Groups, click on **Admin Tools** for the drop-down menu (this menu can only be accessed by admin level users).
- To access advisory menus and setpoint broadcast, click on **Activities** for the drop-down menu.
- To access the online help system, click **Help** for the drop-down menu.

2.5.4. Main Window

The main window of the Site Manager is located to the right of the Navigation frame and takes up most of the space on the screen. Mouse over the name of the menu you would like to select and the drop-down menu will appear. Select the desired menu item by clicking on it. This will open the page in the main window followed by the links.

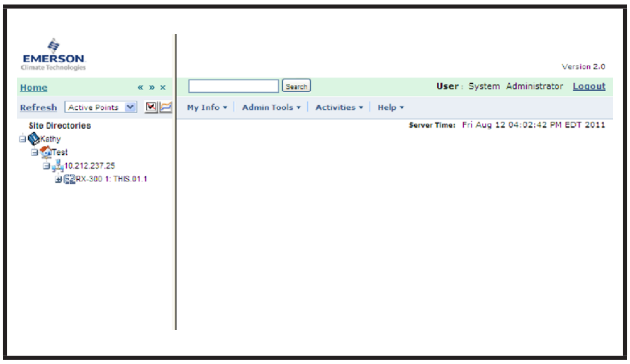


Figure 2-9 *- Main Window*

3 IT Administrator Functions

3.1. Feature Licensing and Registration

Site Manager has basic and extra features that are activated by obtaining a license. To obtain trial and other licensing, you must first register the software.

A license key must be entered to activate the desired feature. A *Maintenance Upgrades & Tech Support* license key activates basic features and the feature license keys activate special Site Manager plug-in features. Keys are entered when the program is first started.

The software feature activation page is accessible from the **Help** drop-down menu. The **Feature Activation** menu item will only be visible with certain user privileges enabled that will allow software license keys to be added/edited.

The *Site Manager Feature Licensing* window displays what type of feature is licensed, the license key number, and license status.

3.1.1. Registration

1. Click the **Help** drop-down menu from the top menu bar and click **Feature Activation**:

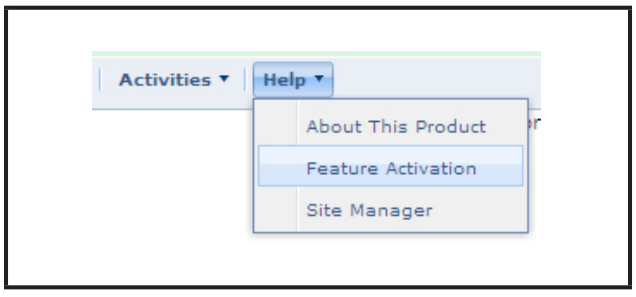


Figure 3-1 *- Help Menu (Expanded view shown)*

2. Click the **Registration** button to proceed in obtaining a license.

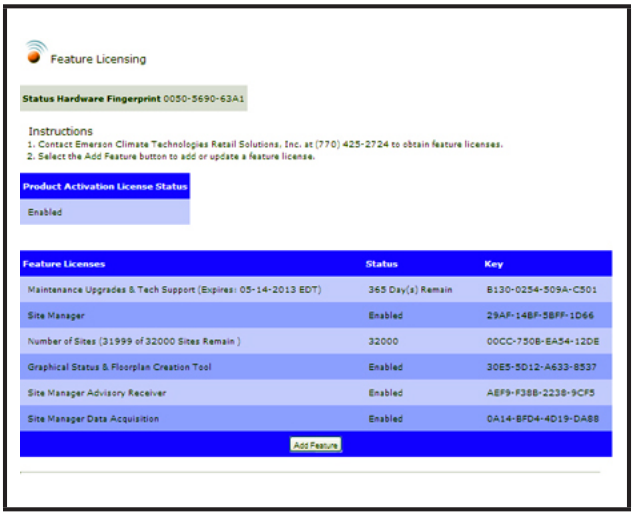


Figure 3-2 *- Feature Licensing Page*

3. Click **OK** to open the *Product Activation License Registration* page. The state of the current license is displayed on this page:

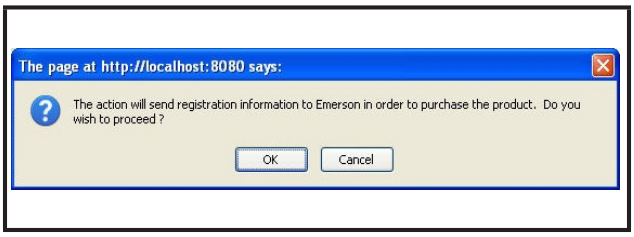

The page at http://localhost:8080 says:
The action will send registration information to Emerson in order to purchase the product. Do you wish to proceed ?
OK
Cancel

Figure 3-3 *- Registration Window Prompt*

4. To begin filling out your information, click the **Register** button and the window will open where you will enter your information:

Figure 3-4 *- Product Activation License Registration Page*

5. Fill out all fields on this window (***Figure 3-5***) including: **Sales Order #** (call Customer Service at *770-425-2724* to obtain your sales order number), **Company Name**, **Address**, **Name**, **E-mail**, **Confirm E-mail**, and a contact **Phone Number**. **Com-**

pany Name and **Name** must not contain any special characters (@, #, $, %, ^, etc.). If desired, enter any extra information into the **Additional Information** box (optional). *Note that for non-SMTP enabled systems, you must specify if the Web application is a virtual machine by selecting **Yes** or **No** for **Virtual Server***. Verify that the information you entered is correct and click the **Submit Registration** button.

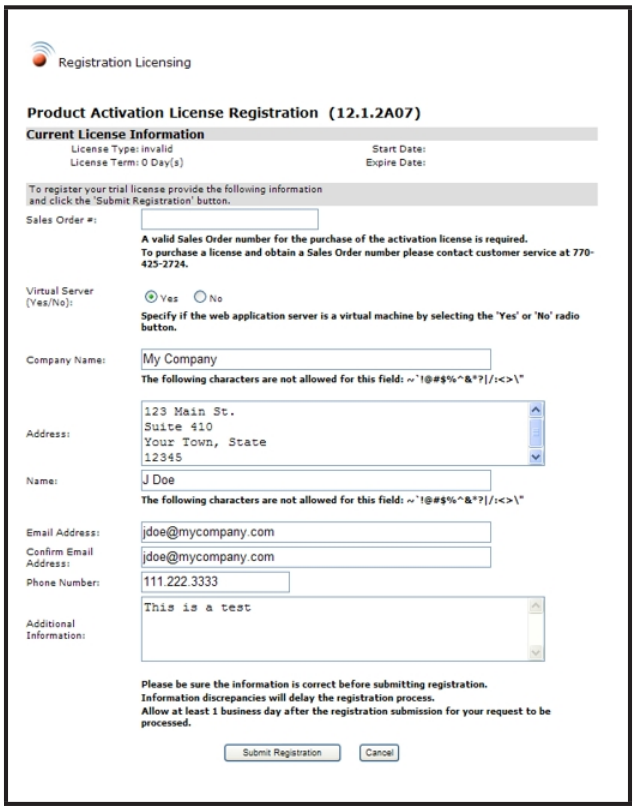

Registration Licensing
Product Activation License Registration (12.1.2A07)
Current License Information
License Type: invalid
License Term: 0 Day(s)
Start Date:
Expire Date:
To register your trial license provide the following information and click the 'Submit Registration' button.
Sales Order #:
A valid Sales Order number for the purchase of the activation license is required.
To purchase a license and obtain a Sales Order number please contact customer service at 770-425-2724.
Virtual Server (Yes/No):
Yes
No
Specify if the web application server is a virtual machine by selecting the 'Yes' or 'No' radio button.
Company Name:
My Company
The following characters are not allowed for this field: ~`!@#$%^&*?|/:<>\"
Address:
123 Main St.
Suite 410
Your Town, State
12345
Name:
J Doe
The following characters are not allowed for this field: ~`!@#$%^&*?|/:<>\"
Email Address:
jdoe@mycompany.com
Confirm Email Address:
jdoe@mycompany.com
Phone Number:
111.222.3333
Additional Information:
This is a test
Please be sure the information is correct before submitting registration.
Information discrepancies will delay the registration process.
Allow at least 1 business day after the registration submission for your request to be processed.
Submit Registration
Cancel

Figure 3-5 *- Product Activation License Registration Information Page*

Your information will automatically be sent to Emerson Retail Solutions. If successful, a confirmation window (***Figure 3-6***) will open to notify you that your registration information has been sent.

6. Click **OK** and you will return to the *Feature Licensing* page.

Registration Licensing
Product Activation License Registration
Current License Information
License Type: trial
License Term: 61 Day(s)
Start Date: 05/15/2009 10:20:04 EDT
Expire Date: 08/13/2009 10:20:04 EDT
Sales Order #:
Your activation license registration information has been sent for processing.
Allow at least 1 business day for your request to be processed.
Please call customer service (770) 425-2724 for registration status.
OK

Figure 3-6 *- Registration Confirmation Window*

NOTE: If your system is SMTP-enabled, go to the Activation section. (For more information on SMTP enabling, contact Technical Support.)

7. For systems that are not SMTP-enabled, after filling out your information, follow the instructions in the *Product Activation and Licensing* window:

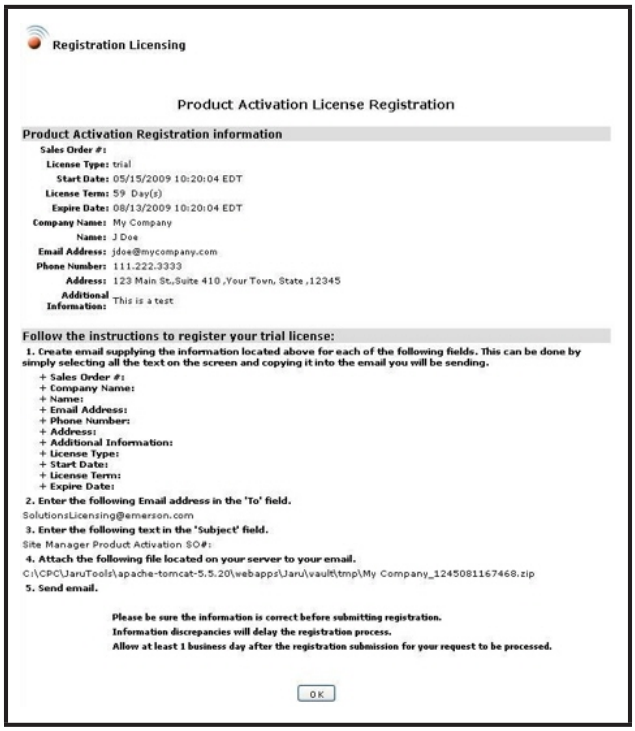

Registration Licensing
Product Activation License Registration
Product Activation Registration information
Sales Order #:
License Type: trial
Start Date: 05/15/2009 10:20:04 EDT
License Term: 59 Day(s)
Expire Date: 08/13/2009 10:20:04 EDT
Company Name: My Company
Name: J Doe
Email Address: jdoe@mycompany.com
Phone Number: 111.222.3333
Address: 123 Main St.,Suite 410 ,Your Town, State ,12345
Additional Information: This is a test
Follow the instructions to register your trial license:
1. Create email supplying the information located above for each of the following fields. This can be done by simply selecting all the text on the screen and copying it into the email you will be sending.
+ Sales Order #:
+ Company Name:
+ Name:
+ Email Address:
+ Phone Number:
+ Address:
+ Additional Information:
+ License Type:
+ Start Date:
+ License Term:
+ Expire Date:
2. Enter the following Email address in the 'To' field.
SolutionsLicensing@emerson.com
3. Enter the following text in the 'Subject' field.
Site Manager Product Activation SO#:
4. Attach the following file located on your server to your email.
C:\CPC\JaruTools\apache-tomcat-5.5.20\webapps\Jaru\vault\tmp\My Company_1245081167468.zip
5. Send email.
Please be sure the information is correct before submitting registration.
Information discrepancies will delay the registration process.
Allow at least 1 business day after the registration submission for your request to be processed.
OK

Figure 3-7 *- Product Activation License Registration Page (for SMTP-disabled systems)*

- Step 1 - Create an e-mail and include all the in-

formation listed in this step.

- Step 2 - Enter SolutionsLicensing@emerson.com in your e-mail's **To:** field.
- Step 3 - In the **Subject:** field of your e-mail, enter **Site Manager Product Activation License SO#** (followed by the Sales Order number obtained from customer service).
- Step 4 - Open your browser window and locate the directory that contains the.**zip** file (verify that it is the most current version if there are more than one).
- Step 5 - Send the e-mail to SolutionsLicensing@emerson.com.

8. Click **OK** and this will return you to the *Feature Licensing* page.

3.1.2. Activation

Once you receive the e-mail containing the file that will activate your trial license, save the file to a location on your drive.

1. Go back to the *Feature Licensing* page and click **Activation**:

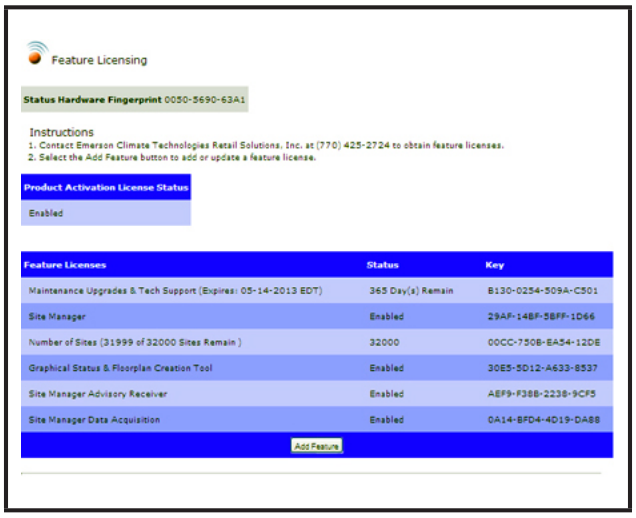


Figure 3-8 *- Feature Licensing Page*

2. Click **OK** on the confirmation window to proceed.

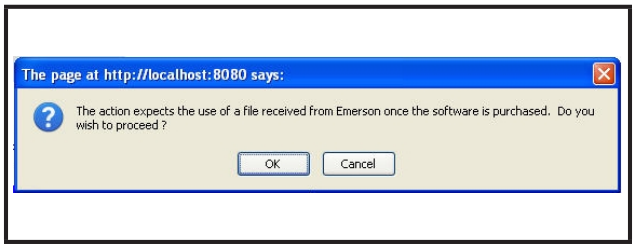

The page at http://localhost:8080 says:
The action expects the use of a file received from Emerson once the software is purchased. Do you wish to proceed ?
OK
Cancel

Figure 3-9 *- Activation Window Prompt*

The *Product Activation License Import* window will open and show the current state of licensing.

3. Click **Browse** and the *File Upload* window will open.

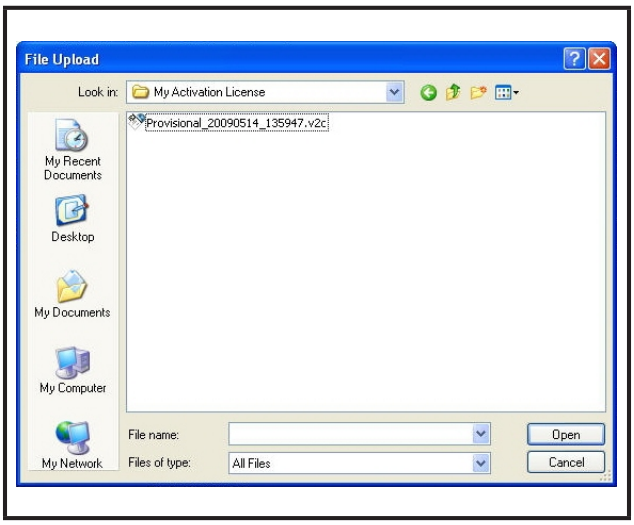


Figure 3-10 *- File Upload Window*

4. Highlight the file and click **Open**.
5. When the file appears in the **Browse** path, click the **Import License** button:

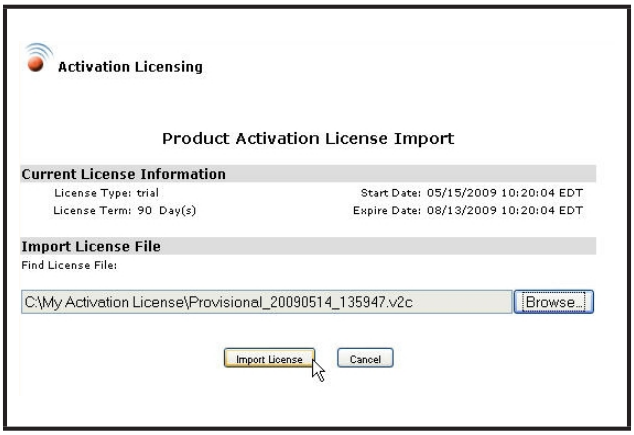


Figure 3-11 *- Product Activation License Import Page*

The *Product Activation License Update* window will open (***Figure 3-12***).

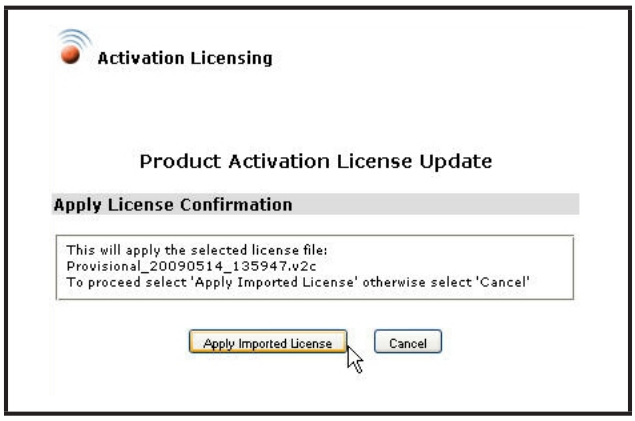


Figure 3-12 - *Product Activation License Update Page*

6. Once the **Apply Imported License** button is clicked, the selected license file will be applied (or click **Cancel** to stop and exit).

3.1.3. Licensing

Site Manager has basic (*Maintenance Upgrades & Tech Support* license) and extra features that are activated by obtaining a license. The license key must be entered on the *Feature Licensing* page to activate the desired feature. A *Maintenance Upgrades & Tech Support* license key activates basic features and the feature license key activates feature functionalities of Site Manager.

The licensing activation page is accessible from the **Help** drop-down menu. The menu will only be visible with certain user privileges enabled to allow you to add/edit software license keys.

Locate your unique **Hardware Fingerprint** number on the *Feature Licensing* page.

Call Emerson Retail Solutions Customer Service at *770-425-2724* with the **Hardware Fingerprint** to obtain a license key for the desired features you wish to activate.

Click the **Add Feature** button on the *Feature Licensing* page and enter the key into the boxes provided (***Figure 3-13***).

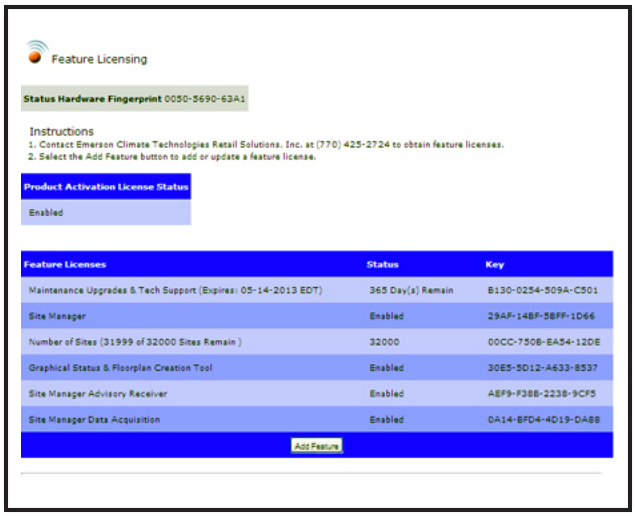


Figure 3-13 - *Feature Licensing Page*

Click **Save**.

The key entered will know what feature it is associated with and will populate the appropriate field(s) on the screen. To override an existing key, a new key will need to be added and replace the existing key.

Click **Cancel** to stop and exit.

3.1.4. Maintenance Upgrades & Tech Support Licensing

The basic features of Site Manager require a *Maintenance Upgrades & Tech Support* license key. Only new users will need to enter this key. As the one-year renewal period approaches, a reminder window will appear and prompt you to renew the *Maintenance Upgrades & Tech Support* key. Contact Emerson Retail Solutions Customer Service for renewal.

3.1.4.1. About Maintenance Upgrades & Tech Support Licensing and Keys

Basic features require a *Maintenance Upgrades & Tech Support* license key (that will need to be renewed yearly) and include features such as user info, pending activities, activity history, setup, obtaining controller info, adding, editing, and deleting directories, sites, and control systems, and some administrator functions.

For features such as backing up, sending reports, forwarding and viewing advisories, setpoint broadcast, accessing the online help system, firmware transfer, and more, a Site Manager license is needed for activation. Additional plug-in features will need specified keys for operation.

Contact Emerson Retail Solutions (*770-425-2724*) with your **Hardware Fingerprint** information for acquiring the license key. Contact Technical Support for instructions on entering keys.

As the one-year renewal period approaches, a reminder window will appear to prompt you to renew the *Maintenance Upgrades & Tech Support* license key. Contact Emerson Retail Solutions Customer Service (*770-425-2724*) for renewal.

3.1.4.2. About Feature Licensing and Keys

Licensed features require an activation key that can be obtained through Emerson Retail Solutions Customer Service. Contact Technical Support for instructions on entering keys.

All possible Site Manager features will be displayed on the Site Manager Feature Activation screen. To enable or update a feature, click the **Add Feature** button.

The key entered will know what feature it is associated with and will populate the appropriate field on the screen. To override an existing key, a new key must be added and replace the existing key. Click **Save** or **Cancel** to exit.

3.2. Database Backup

It is highly recommended that a backup of the database and Web server areas be performed on a daily basis for a complete recovery of information in the event of a failure of the Web server on which Site Manager is running. It is suggested that user-created components such as GS screens, widgets, images, and schedules be backed up.

1. Back up the database using the standard procedure for your particular database.
2. Back up the applicable Web server areas:
   - *webserverhome\webapps\emerson\WEB-INF\classes\com\cpcus\jaru\ui\jsonrpc\GsFilesystem\Screens\User*
   - **If applicable**: *webserverhome\webapps\emerson\WEB-INF\classes\com\cpcus\jaru\ui\jsonrpc\GsFilesystem\Widgets\User*
   - *webserverhome\webapps\emerson\WEB-INF\classes\com\cpcus\jaru\ui\jsonrpc\GsFilesystem\Images*
   - **Log retrieval schedule files located in:** *webserverhome\webapps\emerson*

If using a clustered environment, include these steps when backing up:

STEP B

If the environment being upgraded is now going to be in a clustered environment, each worker box in the cluster must have the GsFilesystem mirrored.

Copy the whole {tomcat webapp | worker classes folder} *\classes\com\cpcus\jaru\ui\jsonrpc\GsFilesystem* folder identically to each worker box.

NOTE: The location of these files are the default settings. They are user-configurable and therefore may be different. webserverhome is the location of your particular Web server. For example, a Web server location might be: c:\program files\tomcat.

3.3. Importing XML Datafile

When exporting a tree from Ultrasite, the XML file can either be exported from UltraSite or the Site Manager PC application. For UltraSite, the XML file can be exported and saved via the Export Data options by right-clicking on the UltraSite tree. The file will be located in the UltraSite install location.

For the Site Manager PC application, the XML file is stored in the Site Manager PC application install location, or a common location depending on the installation options chosen at the time of the install. Note that for the Site Manager PC application, all sites to be imported are assumed to be E2 sites and must be changed in the Site Manager application after importing is complete.

From the **Start** menu on the Web server machine, go to **Programs > Computer Process Controls > Emerson > XML Import Directions** and follow the

instructions for importing the XML file. (The XML import tool can be run as many times as desired and will only import new sites and directories. To run it more than once or to run it outside of this installation, view the XML import directions found at the path listed above.)

NOTE: Since the Site Manager software must have time to start, the Yes button may have to be clicked several times after the Web server has been started.

NOTE: Only sites not already in the database will be imported, so the total number of sites may be lower than expected.

3.3.1. Default Time Zone During Import

If a time zone ID for a site is not present in the XML import file, it will be set to US/Eastern as default.

3.4. Troubleshooting

3.4.1. Page Troubleshooting

3.4.1.1. Online Help Navigation - Pop-up Window Scrolling in Online Help

To scroll through pop-up windows in the online help, use the scroll wheel on your mouse. To close pop-up windows, click anywhere off the pop-up. If pop-up pages in the help appear blank, right-click inside the window and select **Refresh**.

3.4.2. Error Report

If Site Manager encounters a program malfunction during a user's browsing session, an error report will appear on screen:

Message
Fatal Error
Please fill in the following fields and click Send to email the error report
Fatal Error at Mon Apr 12 02:47:23 PM EDT 2010 America/New_York
Details
Please describe what you were doing on the system when the error occurred
Contact Info:
Name: administrator
Company:
Telephone:
Email Address: schedules@engsrv2003.c
Send

Figure 3-14 *- Fatal Error Page*

The error report page displays information of when (date and time) and where the error occurred.

The **Details** button will show a set of program codes of the error when clicked. Click **Hide Details** to hide.

- **Description** - enter a description of the error in the field provided (what you were doing before the error took place, etc.)
- **Company** - enter the name of your company
- **Telephone** - enter your contact numbers
- **Email Address** - (pre-filled by default) the error report will be sent to this email address

Required Fields: **Description**, **Company**, **Telephone**

Click **Send** to send the error report email.

NOTE: The Help link that is found in this page will not contain information about the current page. When clicked, help information about the page you were on right before the error occurred will display.

NOTE: IE 7 and above and the latest version of Firefox (off the Firefox Web site) are the supported browsers. (IE 6 is supported for viewing GS screens only.)

4 Menus

4.1. My Info Menu

4.1.1. About User Info

The **My Info** drop-down menu contains a list of features that consists of anything that pertains to "personal items", your user info, pending activities, activity history, and when applicable, saving a GS Screen as your system home page.

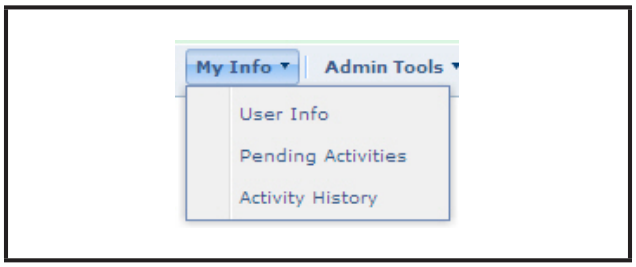


***Figure 4-1** - My Info (Expanded view shown)*

From the **My Info** drop-down list, you can view all of your pending activities and your activity history.

If **My Info** is clicked, a menu appears with active links to each function (figure on the left).

NOTE: If the user has Pending Activities with a status that needs to be viewed, this page will be the first page in the Site Manager main window that the user sees upon entering Site Manager.

4.1.2. User Info

The *My User Info* page allows you to view your current information, enable and disable Home pages, and change your password and contact information.

Security type, login ID and password information can be found in the first section.

Checkbox Section:

- If the **Show GS Screen Edit Tool** checkbox is enabled, the GS menus will become visible on the right-click Navigation Tree menu. Click the **Save** button at the bottom of this page and refresh the Navigation Tree for changes to take effect.
- If the **Enable System Home Page** checkbox is enabled, it will set the GS screen you choose as your system home page (as indicated by **Current Home Page**) on start-up.
- If the **Hide Nav Frame** checkbox is enabled, the navigation tree will be hidden each time you log in. The selected Home page can now be viewed on a full screen.

Engineering units can be set to English or Metric depending on the unit of measure the user requires. Press the **English Units** button to set all fields to English and the **Metric Units** button to set all fields to Metric. **User Info** is found under the **My Info** menu bar. Click **Save** to store the settings and exit the screen or **Cancel** to cancel changes and exit the screen.

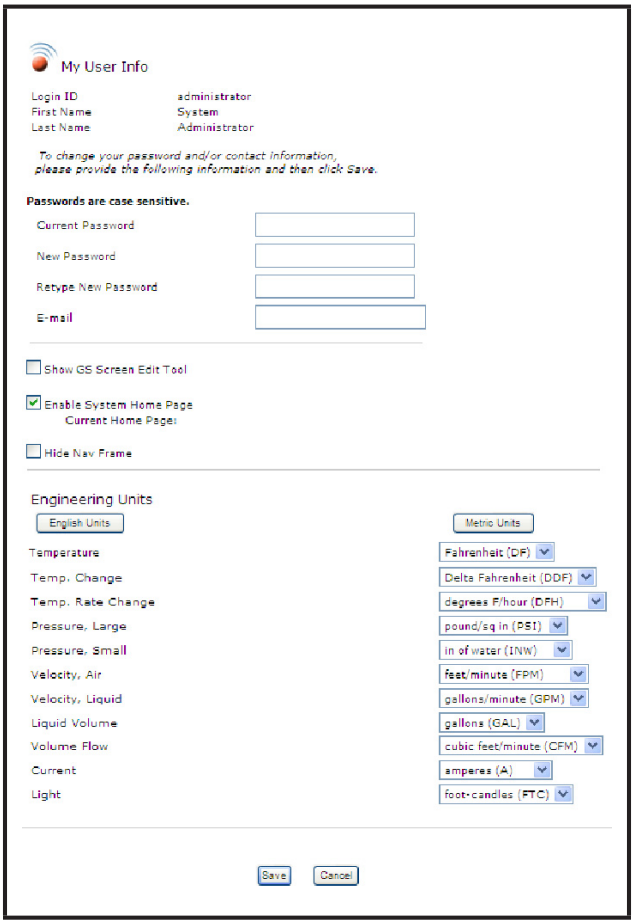


***Figure 4-2** - My User Info Page*

4.1.3. My Pending Activities

The *My Pending Activities - Results* page shows the activities that you, the current user has been waiting to start or that are in progress, and also shows activity status.

My Pending Activities is found under **My Info** on the menu bar.

Figure 4-3 *- My Pending Activities - Results Page*

- **Activity**: An activity that is scheduled to start or currently being performed.
- **Requested to Start**: The start date and time the activity was requested to start.
- **Target**: Reference to exactly where the activity is taking place.
- **Status**: The status including items currently "in progress" and items "waiting to start". Each item's Status will be a link to the expanded information page or status page if applicable. Only items that are "In Progress" and "Waiting to Start" will be displayed.

NOTE: If the user has pending activities with a status that needs to be viewed, the Pending Activities page will be the first page the user sees when first logging into Site Manager.

4.1.4. My Activity History

The *My Activity History - Results* page opens after clicking **Activity History** under **My Info** on the menu bar, or from the Navigation Tree menu.

Activity History - Results at the user level shows a complete history of activities performed, including such information as the type of activity that was performed, start and finish times, duration of the activity, and more.

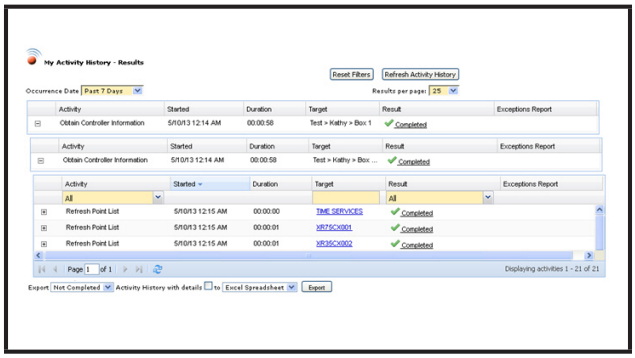


Figure 4-4 *- My Activity History - Results Page*

- **Plus Sign (+)** - Click the plus sign in the first column to expand each activity and list any "child" activities, if there are any. If there are no "child" activities, a message appears: **No activities to display**. For example, if logs are retrieved from the Unit level, the plus sign, when selected, will expand and the user can view each application type that had logs retrieved and the status. Therefore, if an activity failed or is partially complete, users can select the plus sign to see where the failure occurred.
- **Minus Sign (-)** - The minus sign appears for activities and "child" activities already expanded and lets you return one level up and hide any sub-activities displayed.
- **Activity** - which activity was performed. (Clicking **Activity** will sort everything alphabetically.)
- **Started** - the time and date the activity began. (Clicking **Started** will sort everything in ascending order.)
- **Duration** - total elapsed time for the activity to complete.
- **User** - the user who started the activity.
- **Target** - the node from where the activity was started. (Clicking a link in the **Target** column will open the Properties page for that target.)
- **Result** - details the outcome of the activity and whether or not it was successfully completed. (Clicking a link in the **Result** column will open a page containing more details about the activity performed.)
- **Exceptions Report** - click the Exceptions Report icon from this column to open the Activity Failed Report window, which displays a detailed information about the activity that was either failed or partially completed.

Click the down arrow that appears next to a column header to show more columns or enable sorting options:

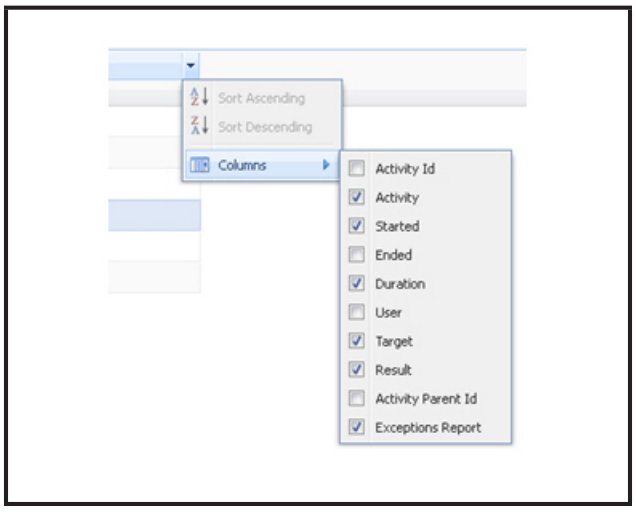


Figure 4-5 *- My Activity History -Results Show More Columns*

- **Sort Ascending/Sort Descending** - arranges the activities alphabetically (from A-Z or Z-A).
- **Ended** - the time and date the activity ended.
- **Activity ID** - (internal use) internal key to the activity the user is currently on.
- **Activity Parent ID** - (internal use) internal key to the parent activity of the one the user is currently on.

Click **Refresh Activity History** and new additions will be displayed, if any.

Click **Reset Filters** to remove all filters and refresh the activity history results.

Click the **Next** and **Back** links to scroll through multiple results pages.

Sort the table to show historical activities that occurred from **Today**, **Yesterday**, **Past 7 Days**, or **Last Month** by setting the **Occurrence Date** drop-down. You can also set a custom date range (**Custom Range**) to show data that occurred only within the date you specified.

Export options are available at the bottom of the page. This allows you to export current page information into different output formats such as **Excel Spreadsheet**, **HTML**, and **PDF**. Select the format from the **Export** drop-down and select whether to export **All** activities displayed or only those **Not Completed** ("Failed" and "Partially Completed" activities).

You can also choose to export all details of the activities by clicking the checkbox. Click the **Export** button to begin the download.

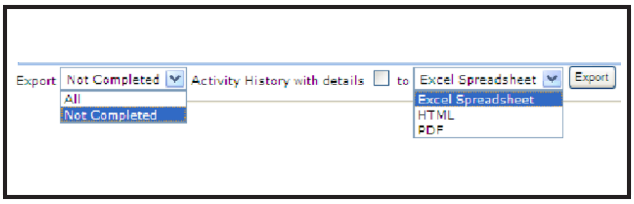


Figure 4-6 *- My Activity History -Results Export Options*

On the *File Download* window, click **Open** or **Save** to continue with the download.

NOTE: Only the columns currently shown on the page will be exported during file download. Enable or disable column headers to show or hide them during download.

NOTE: The activity history that you perform can be specific to a directory, unit, or site. For example, if the user right-clicked on a directory, site, unit, or control system in the navigation tree, results will be shown for the item selected.

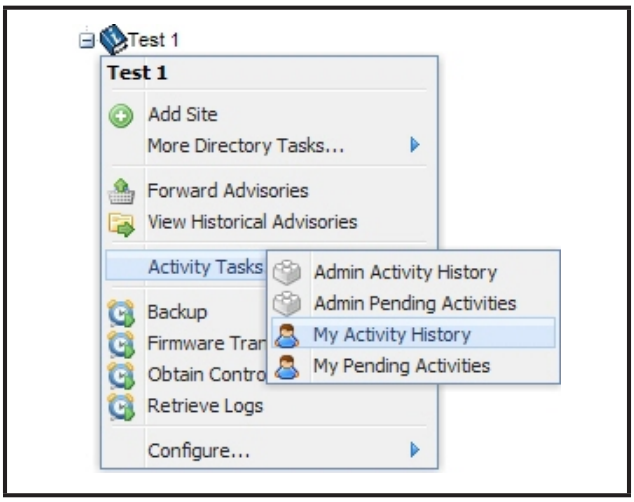


Figure 4-7 *- Navigation Menu Active History*

4.2. Admin Tools Menu

4.2.1. Setup

Site Manager Setup is found under **Admin Tools** on the menu bar. ***Figure 4-8*** shows the menu when expanded:

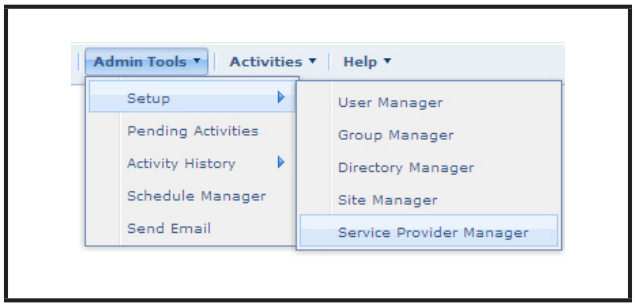
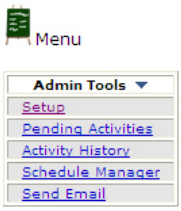


Figure 4-8 *- Admin Tools Menu (Expanded view shown)*

Setup contains the following choices for the administrator: User Manager, Group Manager, Directory Manager, Site Manager, and Service Provider Manager.



Administrator level functionalities are executed from this menu, such as administrator activity history searches, viewing administrator pending activities, and assigning user levels and access rights.

If **Setup** is clicked from the **Admin Tools** menu, the menu appears on the main window with active links to each function.

4.2.1.1. User Manager

The User Manager lists all users in the database. From the *User Manager* page you can select a user to edit, delete a user, or jump to the *User Configuration* page to add a user.

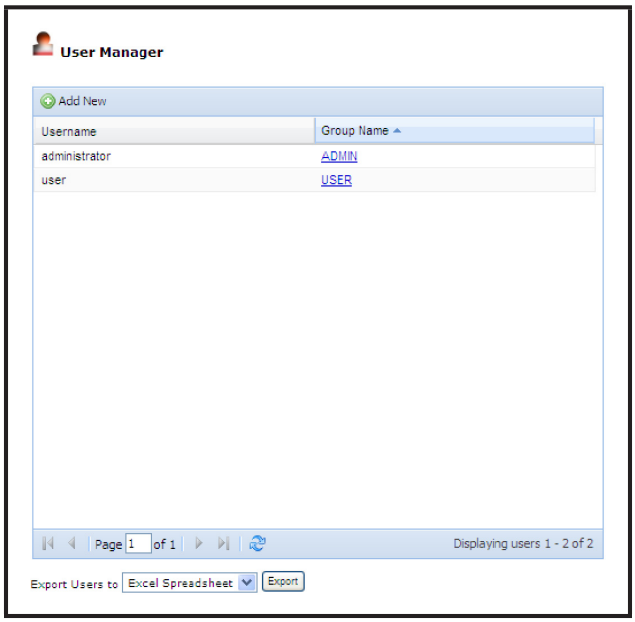


Figure 4-9 *- User Manager Page*

User names and group names that are currently added in the database will display in this page.

If more users are in the database than can display on a single page, the list of user names will appear on multiple pages as indicated at the bottom of the window (Page 1 of 1).

Click the **Username** header for a quick sort or click the drop-down arrow to open the sort menu:

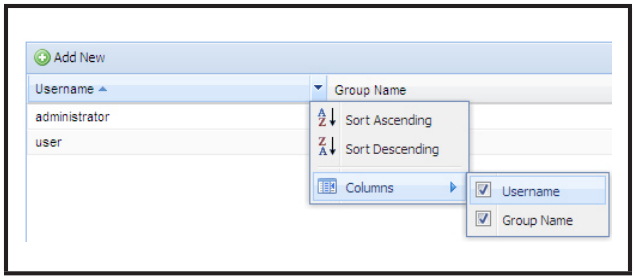


Figure 4-10 *- Username List Sorting*

To download current user information, select from the available export formats from the **Export** drop-down at the bottom of the page: **Excel Spreadsheet**, **HTML**, and **PDF**.

Click **Open** or **Save** on the *File Download* window to proceed with the download.

Adding a New User

To add a user, click the **Add New** button from the *User Manager* page and enter the information into the fields on the *User Configuration* page, refer to ***Figure 4-11***.

Editing a User

To edit a user, view the list of all users from the *User Manager* page and select the desired user name. Click **Edit** and the *User Configuration* page (see ***Figure 4-11***) will open where you can enter changes.

Configuring User Information

Add and Edit users from the *User Configuration* page. Enter Login ID, Name, e-mail address, user group, *security type (*available when LDAP is set as the overall security type), and time zone information. Use the calendar to set the user expiration date (leave blank for no expiration). Click **Save** to store changes or **Cancel** to exit without saving and return to the *User Manager* page. Assign user levels and access rights to those levels by using the Group Manager.

Checkbox Section:

- If the **Show GS Screen Edit Tool** checkbox is enabled, the GS menus will become visible on the right-click Navigation Tree menu. Click the **Save** button at the bottom of this page and refresh the Navigation Tree for changes to take effect.
- If the **Enable System Home Page** checkbox is enabled, it will set the GS screen you choose as your system home page (as indicated by **Current Home Page**) on start-up.
- If the **Hide Nav Frame** checkbox is enabled, the navigation tree will be hidden each time you log in. The selected Home page can now be viewed on a full screen.

Engineering units can be set to English or Metric depending on the unit of measure the user requires. Press the **English Units** button to set all fields to English and the **Metric Units** button to set all fields to Metric. Click **Save** to store the settings and exit the screen or **Cancel** to cancel changes and exit the screen.

If LDAP is selected during the installation of Site Manager, **Local Security** and **LDAP Integration** radio buttons display on this page (above the **Login ID** field). Enable the radio button of the security model type to assign to the current user. **Local Security** is enabled by default. The **User Expiration Date** field and **Change Password** checkbox are disabled when LDAP Integration is selected.

Changing User Passwords: Reset user passwords by enabling the **Change Password** checkbox and entering the new password. Retype the new password again and enter a password hint for password recovery. Click **Save**.

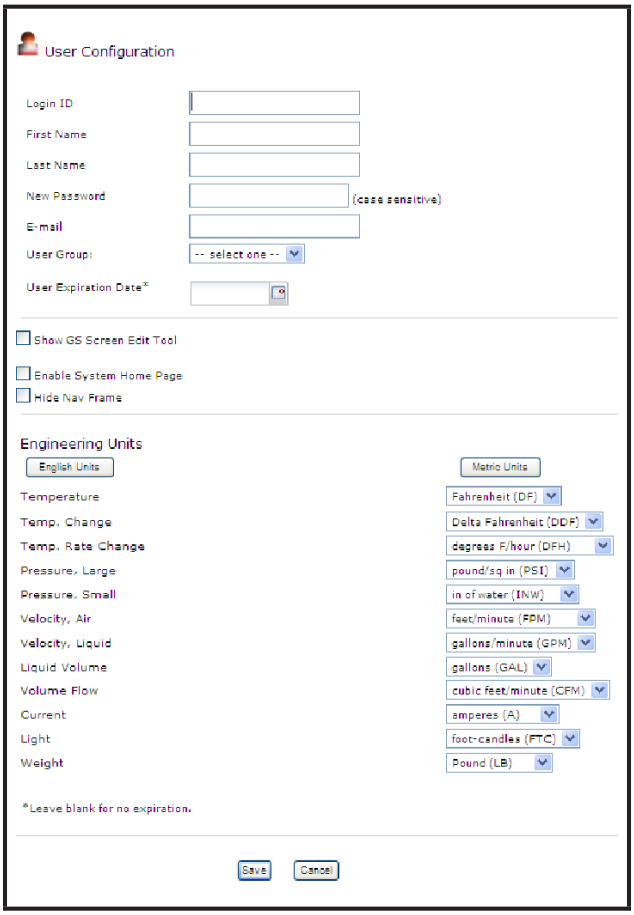


Figure 4-11 *- User Configuration Page*

Note that depending on your security settings, you may have **Security Mode** as a type.

Associating User to Domain User: Assigning a user to a domain user causes security configurations within the domain to apply to that user (for example, controlled access to certain data or screens).

To assign a user to a domain user, click **LDAP Integration** and then enter the domain user name in the **Login ID** text field. The domain user name entered must be in the "*domain\user*" format; otherwise, an

error message displays. To search for a domain user name, click the **Search Domain User** button. On the pop-up window, select the domain user name from the list and click **Select**.

Figure 4-12 *- Select Domain User*

Click **Save**. Check that the chosen domain user name is not assigned already to another user; otherwise, re-assign the user to another domain user name.

Once saved, users can now log in to Site Manager using the domain and the domain user name. The security type assigned to the user will display in the *My User Info* page.

NOTE: Security models are activated during installation of Site Manager. The LDAP security feature is available only for Site Manager versions 12.1 and above. Versions below 12.1 must be upgraded to activate this feature.

Required fields: Login ID, First Name, Last Name, Password, User Group.

Deleting a User

Delete a user by selecting the username (Administrator excluded) and clicking **Delete**. A confirmation window will open asking if you are sure you want to delete the user.

Figure 4-13 *- User Configuration Page - Delete User*

4.2.1.2. Group Manager

Configure user levels and assign access rights to those levels by using the Group Manager. The Group Manager lists all group names in the database. Each group is a link that allows a user to edit that group profile. Select the group name to see **Edit** and **Delete** options. If **ADMIN** is selected, the **Delete** option disappears.

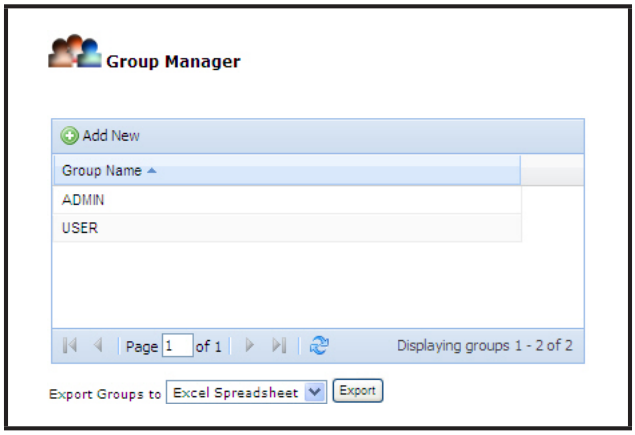


Figure 4-14 *- Group Manager Page*

Group names that are currently in the database will display in the page. If more groups are in the database than can display on a single page, the list of group names will appear on multiple pages as indicated at the bottom of the window (Page 1 of 1).

Click the **Group Name** header for a quick sort or click the drop-down arrow to open the sort menu:

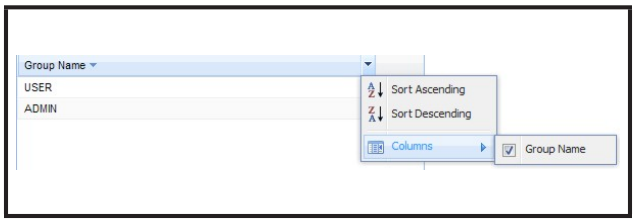


Figure 4-15 *- Group Name List Sorting*

To export group data, select from the available export formats from the drop-down below the table: **Excel Spreadsheet**, **HTML**, and **PDF**.

Click **Open** or **Save** on the *File Download* window to proceed with the download.

Adding a Group

To add a new group, click **Add New** from the *Group Manager* page (***Figure 4-16***) and enter the information into the fields on the *Group Configuration* page.

Figure 4-16 *- Add New Group*

Editing a Group

View the list of all groups from the *Group Manager* page (***Figure 4-17***) and select the desired group name. Click **Edit** and the *Group Configuration* page will open where you can enter changes.

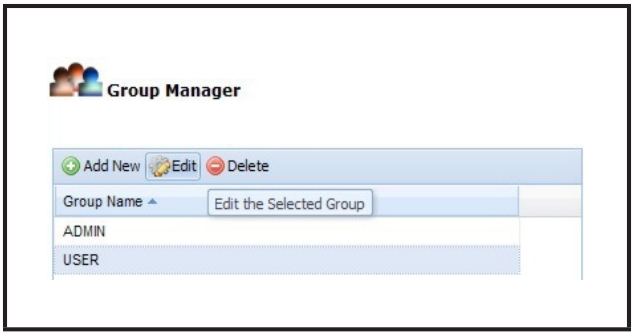


Figure 4-17 *- Edit Group*

Configuring Group Information

Add or edit a new group from the *Group Configuration* page, assign security settings, and set up user privileges. All privileges can be added or subtracted to a user at the admin level on this page. To add or subtract privileges for a user, highlight the privilege in the left column and click the left and right arrows. The right arrow on the top will assign privileges, the left or bottom arrow will unassign the privilege. Click the **Save** button to save and the **Cancel** button to return to the G*roup Manager* page. Mouse over each privilege to see its definition.

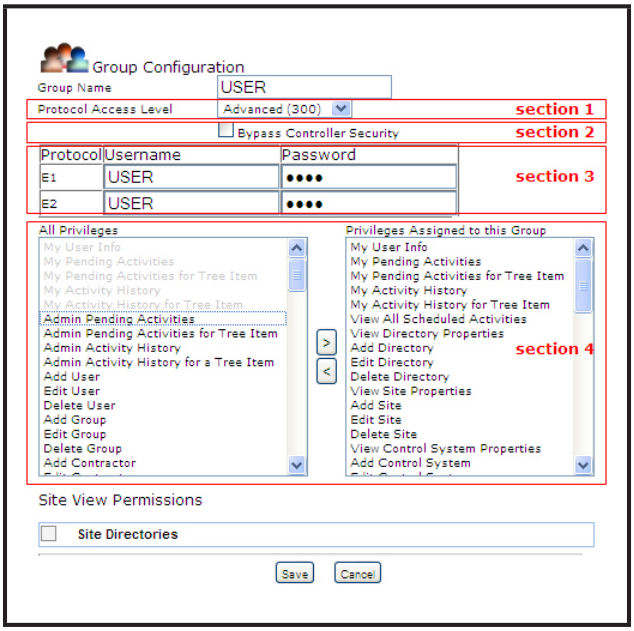


Figure 4-18 *- Group Configuration Page*

Name the new Group by entering it into the **Group Name** field.

Next, set the desired Protocol Access Level that will apply to the group.

1. The Protocol Access Level (PAL) determines what Site Manager activities are available to the users in a group. The available activities will identify what menus and sub-menus will be available to the users in that group.
2. The PAL can be driven either at the Group level (***Figure 4-18***) or at the Control System level. Normally, the Protocol Access Level is default at the Group configuration level. The configurations set at the Control System level will bypass those set at the Group level. This allows users to "manage by exception" the security settings for their network of controllers. For example:
    a. If each Control System in the Directory does not have a user name and password configured, Site Manager will use the username and password at the Group level to log in to the system.
    b. For only some specific Control Systems for which the administrator wants to lock out some activities, the administrator can configure a user with a lower PAL (and consequently, lower activities access) and allowing the Group level settings (with a user with a higher PAL) to log in and execute activities in all other Control Systems that do not have a user/password set up.
3. The Group PAL configuration (***Figure 4-18***) has three sections that can drive the PAL that will be applied when logging to the controller:

- The PAL selected for the Group (***Figure 4-18***, section 1) - This is the "Site Manager Group's Protocol Access Level." Special rules apply to determine how the menus will behave when this PAL differs from the PAL belonging to the Username/Password set at the Group or Control System level, whichever prevails (as explained in the next bullet). These rules are explained in ***Table 4-1***.
- The PAL configured for a User/Password already set in the controller for a specific protocol (i.e., E1, E2, XWEB) as entered in the User/Password pane (***Figure 4-18***, section 3).
- Alternatively, if the **Bypass Controller Security** option is enabled (***Figure 4-18***, section 2), the system will use the PAL set in the **Protocol Access Level** drop-down (***Figure 4-18***, section 1). Enabling this option will also hide and bypass the User/Password pane (***Figure 4-18***, section 3) and bypass those set at the Control System level (if there is any). For additional information about PAL configuration at the Control System level, see **Section 5.4.3., *Edit/ Configure Control System***.

NOTE: The Bypass Controller Security option is not available for XWEB Server protocol types.

Assigning Privileges: To enable users in a group to use an activity, privileges must be selected for the Group under the **Privileges Assigned to this Group** section (***Figure 4-18***, section 4). Use the left arrow button to select (right arrow button to remove) which privileges will be assigned to the Group (the privileges that are assigned will be grayed out so they cannot be assigned twice). A privilege is an activity that can be performed in Site Manager.

Click **Save** to save the new Group and its privileges and go back to the *Group Manager* page. Click **Cancel** to exit without saving and go back to the *Group Manager* page.

For a list of group privileges and their descriptions, see ***Table A-1*** on ***Appendix A: Group Privileges, Descriptions, and Protocol Access Levels***.

For a list of privileges and their minimum required Protocol Access Level, see ***Table A-2*** and ***Table A-3*** on ***Appendix A: Group Privileges, Descriptions, and Protocol Access Levels***.

Group privileges can also be assigned for activities (Restore, Backup, and more).

Required fields: Group Name and at least one privilege.

Site View Permissions: You can assign permissions (which directories and sites) to each Group by enabling the checkboxes next to them.

Note that if you have added or deleted directories and sites to the database at the Navigation Tree level *after* these selections have been made, the checkboxes will not be selected automatically. Simply enable these descendants' checkboxes manually.

Controller Protocol Access Level Vs. Site Manager's Protocol Access Level:

		Site Manager Group's Protocol Access Level (*Figure 4-18*, section 1)	
		High	**Low**
Security associated to dominant controller login (Group Level or Control System Level)	**High**	If Activity is enabled for this user's group then, the user will see the Activity in the menu. Otherwise, the user will not see the menu.	User will not see menu
	Low	Access denied	If Activity is enabled for this user's group then, the user will see the Activity in the menu. Otherwise, the user will not see the menu.

Table 4-1 *- Controller Protocol Access Level Vs. Site Manager's Protocol Access Level*

NOTE: Rules in Table 4-1 do not apply when the Bypass Controller Security option has been selected.

Deleting a Group

A group (Administrator excluded) can be deleted by selecting the desired group and clicking **Delete**. A confirmation window will open asking if you are sure you want to delete the group. Click **OK** to delete, **No** to stop.

4.2.1.3. Directory Manager

The Directory Manager lists all directories in the database. From the *Directory Manager* page you can select a directory to edit, delete a directory, view its properties, or jump to the *Directory Configuration* page to add a directory.

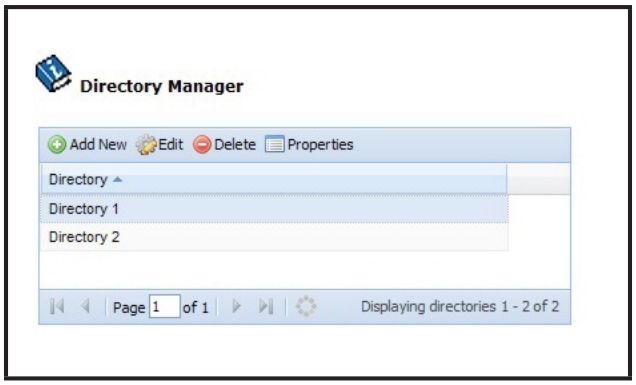


Figure 4-19 *- Directory Manager Page*

If more directories are in the database than can display on a single page, the list of directory names will appear on multiple pages as indicated at the bottom of the window (**Page 1 of 1**).

Click the **Directory** header for a quick sort or click the drop-down arrow to open the sort menu:

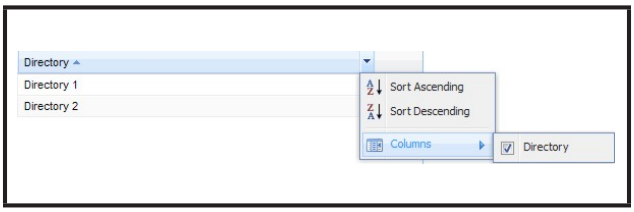


Figure 4-20 *- Directory List Sorting*

Adding a Directory

To add a new directory, click the **Add New** button from the *Directory Manager* page (***Figure 4-21***) and enter the information into the fields on the *Directory Configuration* page.

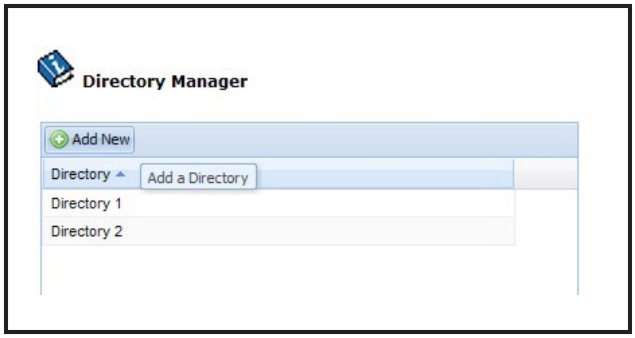


Figure 4-21 *- Add New Directory*

Editing a Directory

View the list of all directories from the *Directory Manager* page (***Figure 4-22***) and select the desired directory name you wish to edit.

Click **Edit** to open the *Directory Configuration* page where you can enter changes.

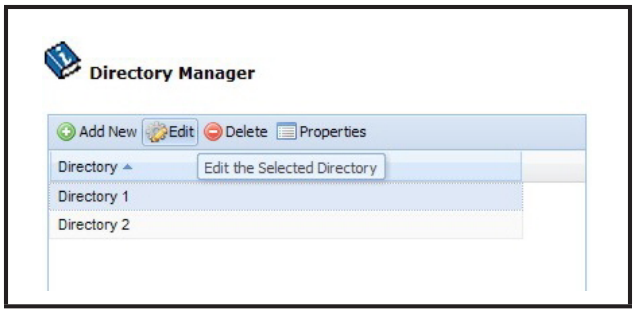


Figure 4-22 *- Edit Directory*

Configuring Directory Information

Add or edit a new directory from the *Directory Configuration* page. Edit the directory information by changing the current information in the fields, or by entering new information for a new directory in the fields. If **United States** is selected as the country, a drop-down menu with all the states will be shown. If another country is selected, the **State/Province/Region** drop-down menu will be changed to a blank text field to allow a name to be entered in the field. Click **Save** to store changes and **Cancel** to exit without saving and return to the *Directory Manager* page.

The *Directory Configuration* page is also available from the right-click/mouse-over **Add Directory** and **Edit Directory** menus at the Directory level in the Site Manager navigation tree.

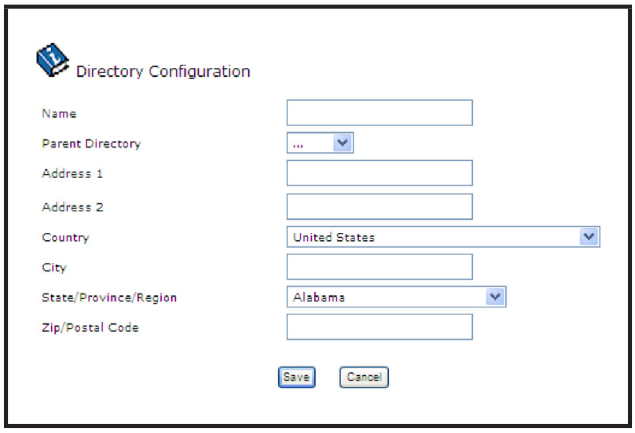


Figure 4-23 *- Directory Configuration Page*

Required field: Name.

Deleting a Directory

A user can delete a directory by selecting the directory from the list and clicking **Delete**. A confirmation window will open and ask if you are sure you want to delete the directory.

Click **OK** to delete, **No** to stop.

4.2.1.4. Site Manager

The Site Manager lists all sites in the database. From the *Site Manager* page you can select a site to edit, delete a site, view its properties, or jump to the *Site Configuration* page to add a site.

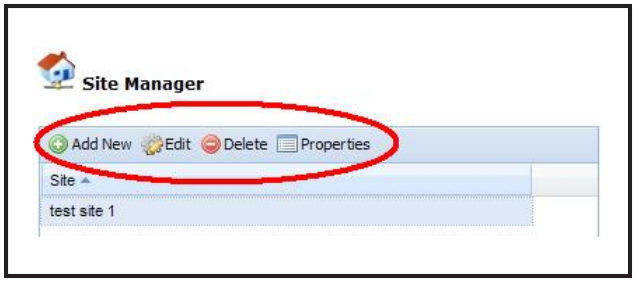


Figure 4-24 *- Site Manager Page*

If more sites are in the database than can display on a single page, the list of site names will appear on multiple pages as indicated at the bottom of the window (Page 1 of 1).

Click the **Site** header for a quick sort or click the drop-down arrow to open the sort menu:

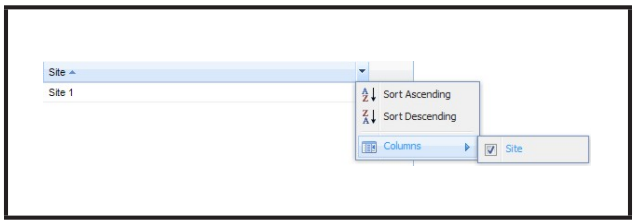


Figure 4-25 *- Sort Site Names*

Adding a Site

To add a new site, click **Add New** from the *Site Manager* page and enter the information into the fields on the *Site Configuration* page.

Editing a Site

To edit a site, view the list of all sites from the *Site Manager* page and select the desired site name. Click **Edit** and the *Site Configuration* page will open where the user will enter changes.

Configuring Site Information

Add or edit a new site from the *Site Configuration* page. Edit the site information by changing the current information in the fields, or entering new information for a new site in the fields. If the **United States** is selected as the country, a drop-down menu with all the states will be shown. If another country is selected, the **State/Province/Region** drop-down menu will be changed to a blank text field to allow a name to be entered in the field. Click the **Save** button to save and the **Cancel** button to return to the *Site Manager* page.

The *Site Configuration* page is also available from the right-click/mouse-over **Add Site** and **Edit Site** menus at the Directory or Site levels in the navigation tree. Click **Save** to store changes or **Cancel** to exit without saving and return to the *Site Manager* page.

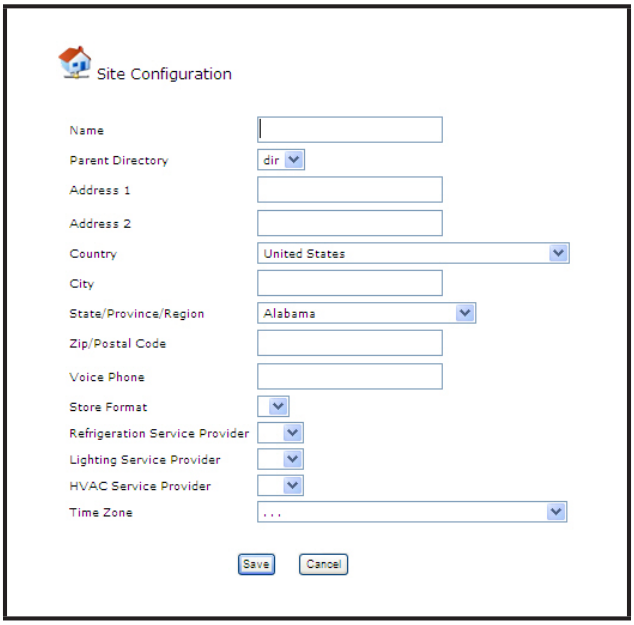


Figure 4-26 *- Site Configuration Page*

Required fields: Name and Time Zone.

Control Systems can be added and deleted from this page. Click the **Add Control System** button to add a new control system.

Deleting a Site

A user can delete a site by selecting the desired site and clicking **Delete**. A confirmation window will open and ask if you are sure you want to delete the site.

Click **OK** to delete, **No** to stop.

4.2.1.5. Service Provider Manager

To manage service provider information, go to the *Service Provider Manager* page under **Admin Tools**.

Add a new service provider by clicking **Add New**. This will take you to the *Service Provider Configuration* page where all information about the service provider can be entered.

Erase service provider information from the database by selecting a service provider from the list and clicking **Delete**.

Edit service provider information by selecting a service provider name and clicking **Edit**. This will take you to the *Service Provider Configuration* page where service provider information can be edited.

View contact details about each service provider by selecting a service provider name and clicking **Properties**. This will take you to the *Service Provider Properties* page that will show details about the selected service provider.

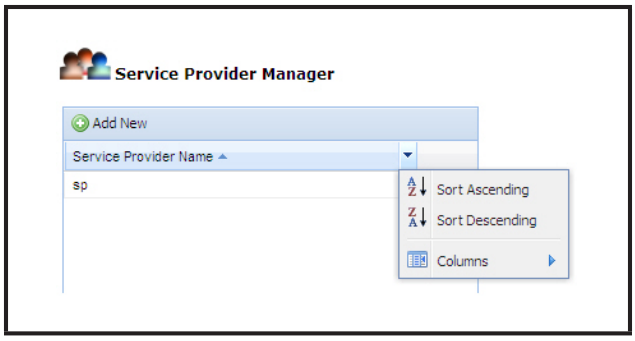


Figure 4-27 *- Service Provider Manager Page*

Click the **Service Provider Name** header for a quick sort or click the drop-down arrow to open the sort menu:

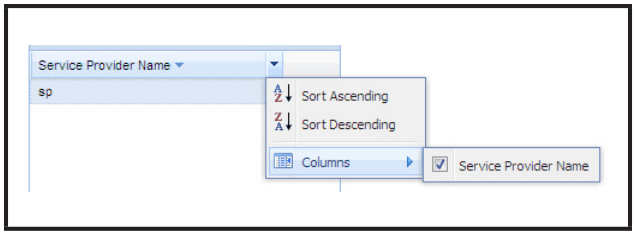


Figure 4-28 *- Sort Service Provider Name*

Configuring Service Provider Information

Add or edit a new service provider from the *Service Provider Configuration* page. Edit the service provider information by changing the current information in the fields, or by entering new information for a new service provider in the fields. If **United States** is selected as the country, a drop-down menu with all the states will be shown. If another country is selected, the **State/Province/Region** drop-down menu will be changed to a blank text field to allow a name to be entered in the field. Click **Save** to store changes and **Cancel** to exit without saving and return to the *Service Provider Manager* page.

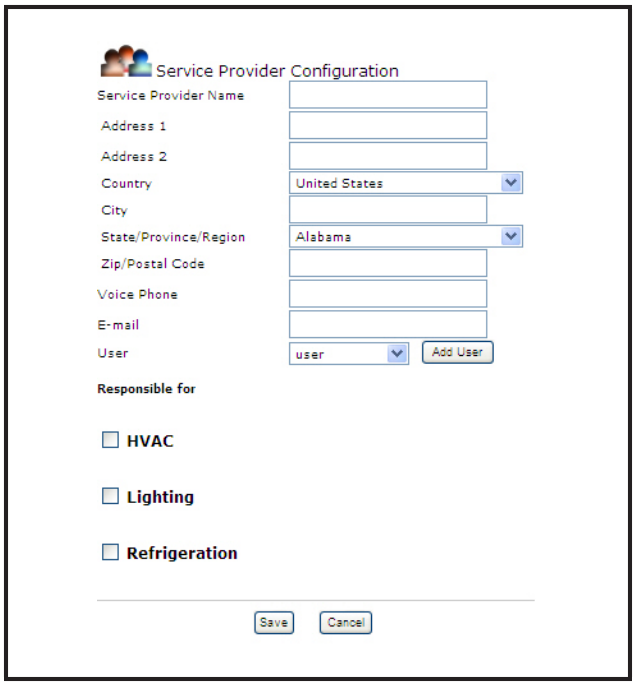


Figure 4-29 *- Service Provider Configuration Page*

Required fields: E-mail.

Service Provider Properties

From this page you can view detailed information about the service provider, delete a service provider (a pop-up window will appear and ask if you are sure), and edit a service provider (this will take you to the *Service Provider Configuration* page). Clicking the **Service Provider Properties** link refreshes this page.

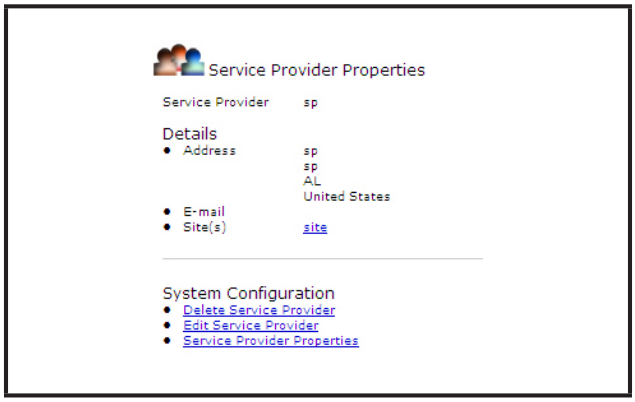


Figure 4-30 *- Service Provider Properties Page*

4.2.2. Pending Activities

The *Pending Activities - Results* page shows the current activities that users have waiting to start or that are in progress, and also shows activity status. **Pending Activities** is found under the **Admin Tools** menu on the menu bar.

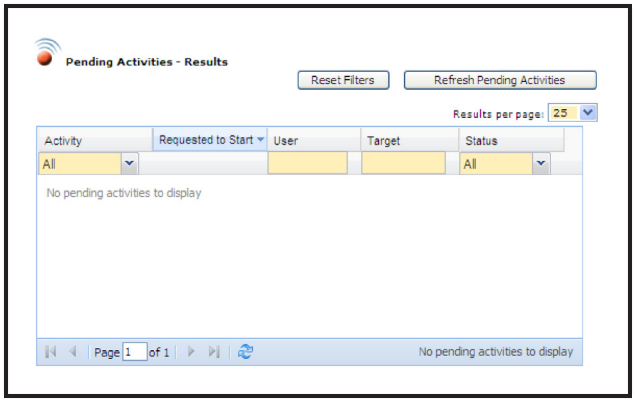


***Figure 4-31** - Pending Activities - Results page (Admin level view shown)*

- **Activity**: An activity that is scheduled to start or currently being performed.
- **Requested to Start** (Site Time): The default time is displayed depending on the page that the user is viewing.
- **User**: The user to which the pending activity is assigned.
- **Target**: Reference to exactly where the activity is taking place.
- **Status**: The status including items currently "in progress" and "waiting to start". Each item's Status will be a link to the expanded information page or status page if applicable. Only items that are "In Progress" and "Waiting to Start" will be displayed.

NOTE: If the user has pending activities with a status that needs to be viewed, the Pending Activities page will be the first page the user sees when first logging into Site Manager.

4.2.3. Admin Activity History

4.2.3.1. View History

The *Activity History - Results* page opens after clicking **Activity History** under **Admin Tools** on the menu bar, or from the Navigation Tree menu. ***Figure 4-32*** shows an illustration of the page.

Activity History - Results at the administrator level shows a complete history of activities performed, including such information as the type of activity that was performed, start and finish times, duration of the activity, user information, and more.

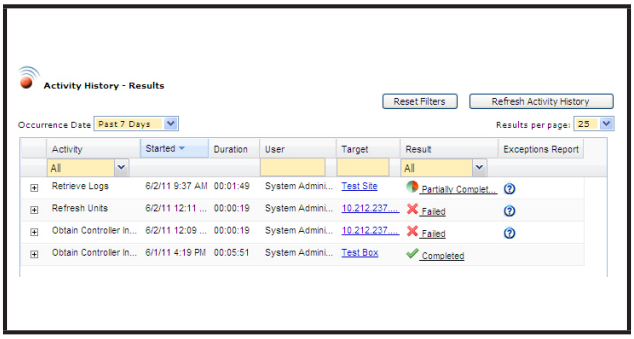

Activity History - Results
Reset Filters
Refresh Activity History
Occurrence Date Past 7 Days
Results per page: 25
Activity
Started
Duration
User
Target
Result
Exceptions Report
All
All
Retrieve Logs 6/2/11 9:37 AM 00:01:49 System Admini... Test Site Partially Complet...
Refresh Units 6/2/11 12:11 ... 00:00:19 System Admini... 10.212.237.... Failed
Obtain Controller In... 6/2/11 12:09 ... 00:00:19 System Admini... 10.212.237.... Failed
Obtain Controller In... 6/1/11 4:19 PM 00:05:51 System Admini... Test Box Completed

***Figure 4-32** - Activity History - Results page (Admin level view shown)*

- **Plus Sign (+)**: Click the plus sign in the first column to expand each activity and list any "child" activities, if there are any. If there are no "child" activities, a message appears: **No activities to display**. For example, if logs are retrieved from the Unit level, the plus sign, when selected, will expand and the user can view each application type that had logs retrieved and the status. Therefore, if an activity failed or is partially complete, users can select the plus sign to see where the failure occurred.
- **Minus Sign (-)** - The minus sign appears for activities and "child" activities already expanded and lets you return one level up and hide any sub-activities displayed.
- **Activity**: Which activity was performed. (Clicking **Activity** will sort everything alphabetically.) Use the drop-down menu to view all of a certain type of activity.
- **Started**: The time and date the activity began. (Clicking **Started** will sort everything in ascending order.) Use the **Occurrence Date** drop-down to view a specific time frame: **All**, **Today**, **Yesterday**, and **Past 7 Days**, **Last Month**, or **Custom Range** (enter your desired date range).
- **Duration**: The elapsed time of the activity.
- **User**: The user who performed the activity. (Clicking **User** will sort by user name in alphabetical order.)
- **Target**: Shows on what property the activity was performed. (Clicking a link in the **Target** column will open the Properties page for that target.)
- **Result**: Details the outcome of the activity and whether or not it was successfully completed. (Clicking a link in the **Result** column will open an

Activity Details box containing more details about the activity performed.) Use the drop-down menu to view by Result type.

- **Exceptions Report** - Click the Exceptions Report icon from this column to open a window that displays details of the activity that was either failed or partially completed.
- **Sort Ascending/Sort Descending** - arranges the activities alphabetically (from A-Z or Z-A).
- **Ended** - the time and date the activity ended.
- **Activity ID** - (internal use) internal key to the activity the user is currently on.
- **Activity Parent ID** - (internal use) internal key to the parent activity of the one the user is currently on.

Click **Refresh Activity History** and new additions will be displayed, if any.

Click **Reset Filters** to remove all filters and refresh the activity history results.

Click the **Next** and **Back** links to scroll through multiple results pages.

Sort the table to show historical activities that occurred from **Today**, **Yesterday**, **Past 7 Days**, or **Last Month** by setting the **Occurrence Date** drop-down. You can also set a custom date range (**Custom Range**) to show data that occurred only within the date you specified.

Export options are available at the bottom of the page. This allows you to export current page information into different output formats such as **Excel Spreadsheet**, **HTML**, and **PDF**. Select the format from the **Export** drop-down and select whether to export **All** activities displayed or only those **Not Completed** ("Failed" and "Partially Completed" activities). You can also choose to export all details of the activities by clicking the checkbox. Click the **Export** button to begin the download.

NOTE: Only the columns currently shown on the page will be exported during file download. Enable or disable column headers to show or hide them during download.

NOTE: The activities history you perform can be specific to a directory, unit, or site. For example, if the user right-clicked on a directory, site, unit, or control system in the Navigation Tree, results will be shown for the item selected.

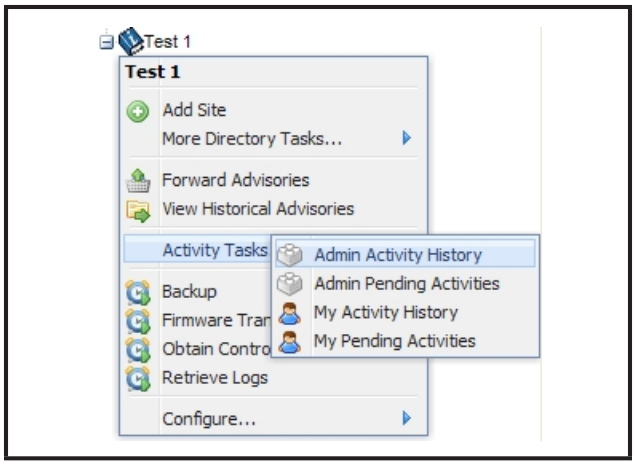


***Figure 4-33** - Admin Activity History Menu from Navigation Tree*

4.2.3.2. Configure Purge

Activity History data is stored in the database but can be deleted with the Configure Purge feature. You can choose to keep the default setting of never purging (keep all records forever), or choose to keep only a specific number of weeks or months by configuring the parameter settings.

Enter the number of weeks/months and time of day to remove old items depending on which you choose.

Click **Save** to save the settings, **Cancel** to stop and exit

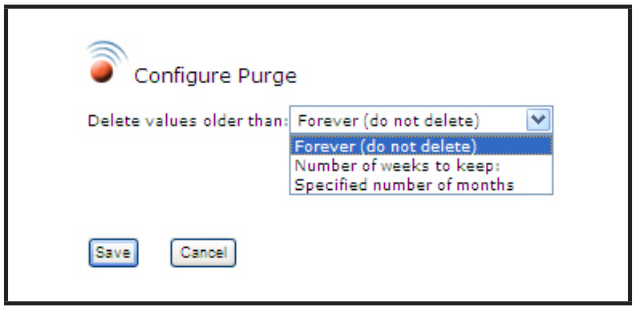


***Figure 4-34** - Configure Purge Page*

4.2.4. Schedule Manager

Activities can be scheduled so you can manage when and how often they are run. All schedules are based on the server's time zone. The server's time zone will be displayed to the user at the top of the screen under the Schedule Manager heading. All schedules are based on the server time zone.

To access the *Schedule Manager* page, click **Schedule Manager** from the **Admin Tools** menu. The page will show a table that lists all the scheduled activities based on server's time zone.

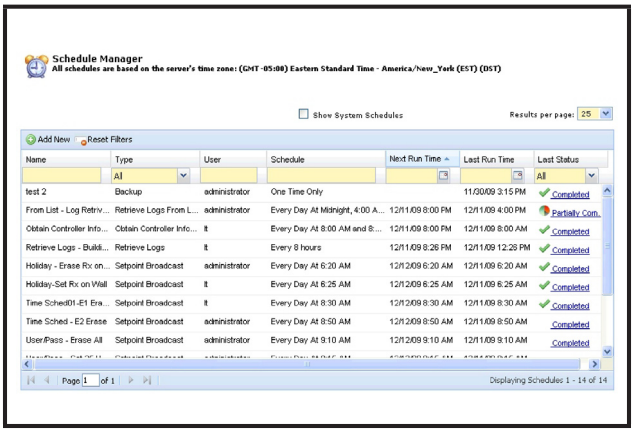


Figure 4-35 *- Schedule Manager Page*

4.2.4.1. Setting Up User Schedules

There are two categories of schedules: **user** and **system**. User schedules are created and edited by users. System schedules are automatically set up and are not able to be edited by users. A table with all the scheduled activities will be displayed.

By default, the columns are sorted according to the next run time, which will be in ascending order. The columns are sorted by clicking on the column header.

- **Name**: A unique descriptive name given to a schedule by the user or Site Manager in case of a system scheduled activity.
- **Type**: The type of activity scheduled. If it is a system scheduled activity, then the Type will be system. If user, the Type will be user. You can select the type of filter from within the **Type** column.
- **User**: The user who created or last modified the schedule. This user is the "owner" of the schedule. The user column will not be visible if the user has only *Edit My Scheduled Activities* and/or *Delete My Scheduled Activities* privileges.
- **Schedule**: A description of when the schedule will run.
- **Next Run Time**: A time stamp of when the next date/time the schedule will run.
- **Last Run Time**: A time stamp of when the last date/time the schedule ran. If the schedule has not run yet, **Last Run Time** will be left blank.
- **Status**: The last status of the schedule will be displayed. Icons will be displayed similar to the icons used in Activity History.
  The status may be clicked on to view the detailed activity history for that schedule.
  The status will be linked to the most recent activity history that is attached to the schedule and has not been purged.
  If the schedule has not run yet, **Last Status** will be left blank.

The buttons placed at the top of the table are used for adding, editing, deleting, and disabling schedules. The buttons underneath are for scrolling and refreshing the page.

Figure 4-36 *- Schedule Manager Header Buttons*

- **Add New**: The *Schedule Manager* screen will open once the user clicks **Add New**. This will open the screen that allow users to create a new user scheduled activity and configure.
- **Edit**: Clicking on the **Edit** button will allow users to go into the schedule screen to modify or view the details of the schedule.
- **Delete**: Only user schedules may be deleted. You will be prompted to confirm or cancel.
- **Disable/Enable:** Depending on Edit privilege given to your group, you can disable or enable schedules anytime from this page by clicking the **Disable/Enable** toggle button. Disabling a schedule will not delete it in the list but will only suspend it until the time you (or another user) set it back to "Enable" mode.
- **Run Now**: If you would like to run an existing schedule immediately, click on the **Run Now** button. Once selected, the progress page opens.
- **Reset Filters:** Applied filters will reset to default.

Adding a new or modifying an existing schedule

Double-clicking on a schedule will allow users to edit that schedule (same as clicking the **Edit** button).

The graphic below shows an example of a Backup activity to be scheduled on a daily basis (**Calendar Based**):

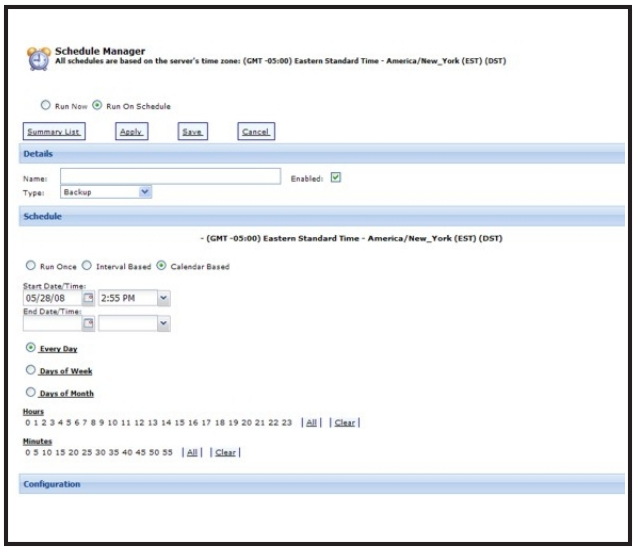


***Figure 4-37** - Example of a Scheduled Activity (Calendar Based)*

A schedule can be set to run once. If **Run Once** is chosen, options for Interval and Calendar Based will not be shown.

NOTE: Setpoint Broadcasts may only be configured on a Run Once or Calendar-based schedule.

Notification can be sent concerning the status of the schedule based on two options:

- **On Success:** Activity was successful.
- **On Unsuccessful:** Activity was unsuccessful, which means partially completed or failed.

To run a schedule daily, enter a Date and specify the time the schedule should run. Leave the **End Date/Time** blank to keep running indefinitely. A validation prompt will occur if the correct time was not entered.

Schedules can also be based on an interval (select the **Interval Based** option):

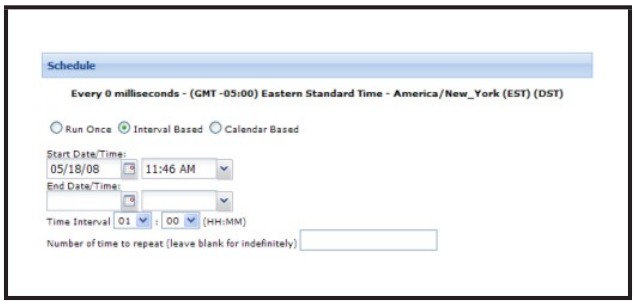


***Figure 4-38** - Example of a Scheduled Activity (Interval Based)*

Enter the **Number of times to repeat** or leave blank to run indefinitely.

Note that there will be no option for interval based schedules if **Setpoint Broadcast** is selected from the **Type** drop-down menu.

Schedules can also be **Calendar-based**:

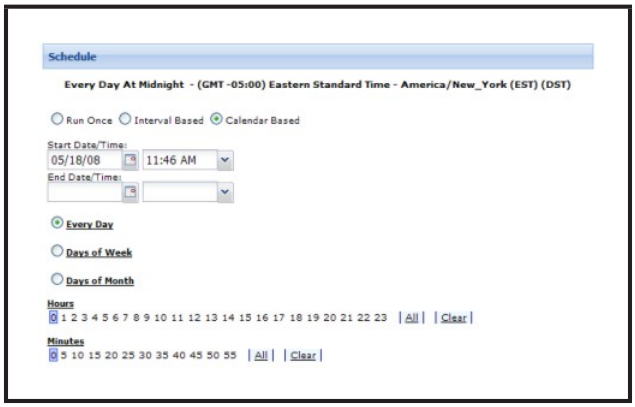


***Figure 4-39** - Example of a Scheduled Activity (Calendar Based)*

- **Months:** Users will have the option to multi-select any month/months from January to December. This selection is only visible for Days of Week and Days of Month calendar schedules.
- **Days of the Week:** Multi-select any day/days from Sunday to Saturday. This selection is only visible for Days of Week calendar schedules.
- **Hours and Minutes:**
  Hours: multi-select any hour/hours from 0 to 23.
  Minutes: multi-select any minute/minutes from 0 to 55 in 5 minute increments.
  Or select the **All** button instead of manually clicking on each option at the end of each selection.

Clear any selections by clicking on the **Clear** button.

4.2.4.2. User Schedules

Scheduling Setpoint Broadcast

When store hours change or special events occur, scheduling a Setpoint Broadcast can send data to multiple groups, sites, and/or multiple controllers at one site, and provides the ability to send setpoint and parameter information across a single enterprise.

To schedule Setpoint Broadcast, refer to **Section 4.3.2.,** ***Setpoint Broadcast***.

Scheduling Retrieve Logs

Retrieving logs shows a historical view of inputs and outputs of the applications you choose retrieve logs on, which creates a history of records of the inputs and outputs for that application.

For scheduling Log Retrievals, enter a name and choose whether the log retrieval should be run now or on a schedule. Select the type of **Schedule** (one-time only, at intervals, or calendar-based).

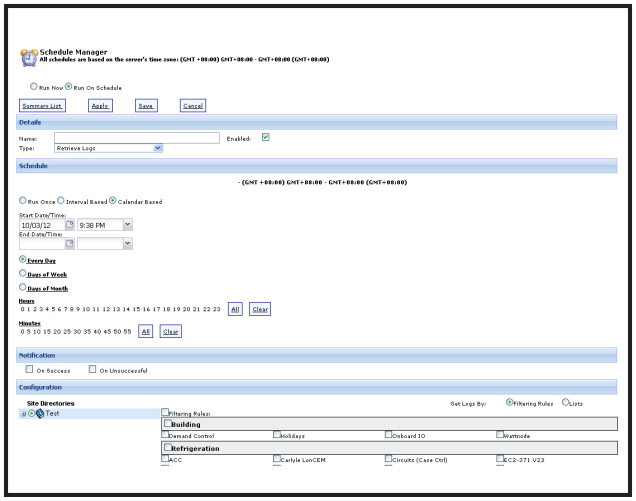


Figure 4-40 *- Scheduling Retrieve Logs*

Scheduling Retrieve Logs From List

One or more appropriate selection of lists can be chosen when the Retrieve Logs From List is selected. Only the points with logs that are included in the previously made list will be retrieved.

Click **Run Now** > **Go** to run the activity immediately or save the schedule configuration to be run later on a schedule (**Run On Schedule**).

Click the **Power Builder** link to open the List Power Builder window.

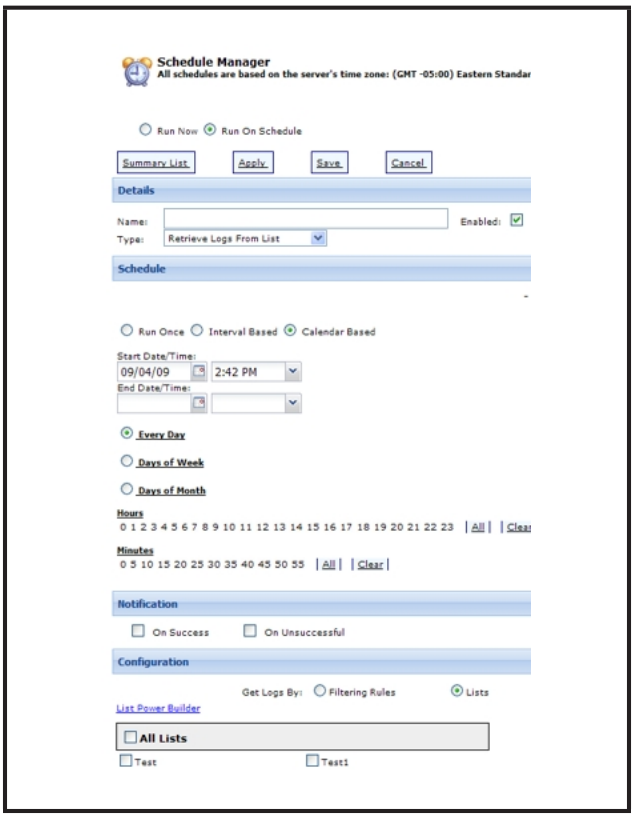


Figure 4-41 *- Scheduling Retrieve Logs From List*

Scheduling Refresh Point List

Refresh point list is an activity that may be performed at a control system level. When a refresh point list is performed, information is pulled from the controller and is posted to the database.

For scheduling Refresh Point List, enter a name and choose whether refreshing the point list should be run now or on a schedule. Select the type of Schedule (one-time only, at intervals, or calendar-based).

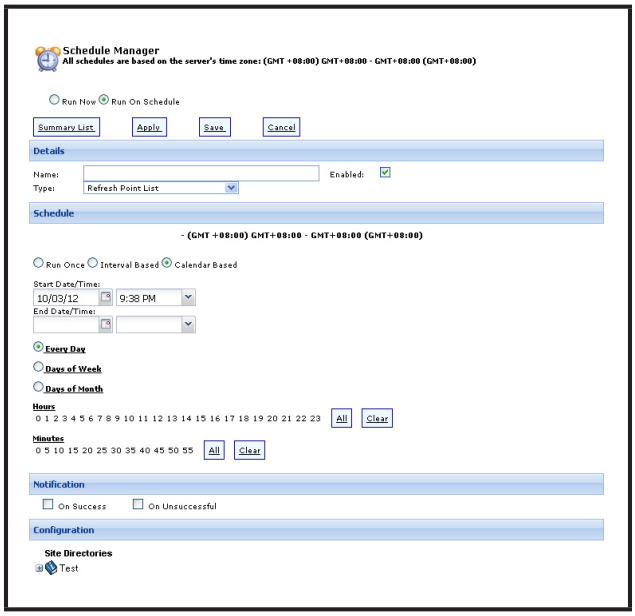


Figure 4-42 *- Scheduling Refresh Point List*

For scheduling a Backup, enter a name and choose whether the backup should be run now or on a schedule. Select the type of **Schedule** (one-time only, at intervals, or calendar-based).

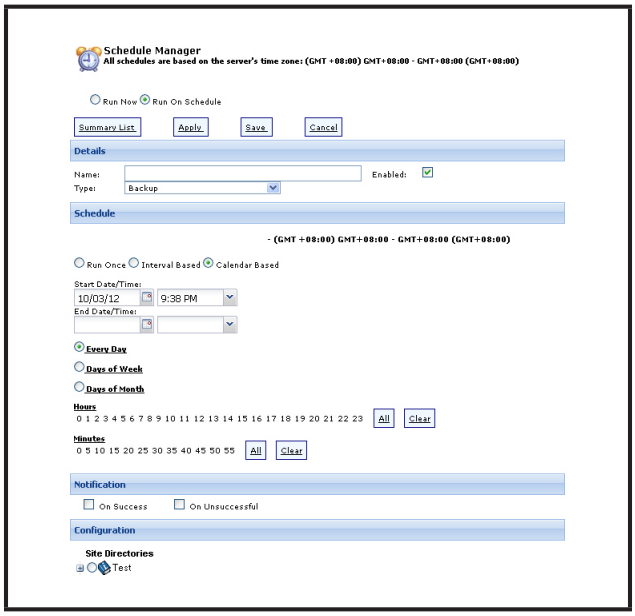


Figure 4-43 *- Scheduling Backup*

Scheduling Backup

A Backup saves information from a controller to the server and can be done at the directory, site, control system, or unit level.

Scheduling Obtain Controller Information

The Obtain Controller Information activity connects to a given Control System, refreshes the Unit list, refreshes the Application List for each Unit, and refreshes the points for any Application Instances that have “out of date” points, which means the point list will be retrieved for any applications that have never had a point list retrieved, and also for any applications

that have changed since the last time the point list information was checked. (Obtain Controller Information can be scheduled from the Schedule Manager:

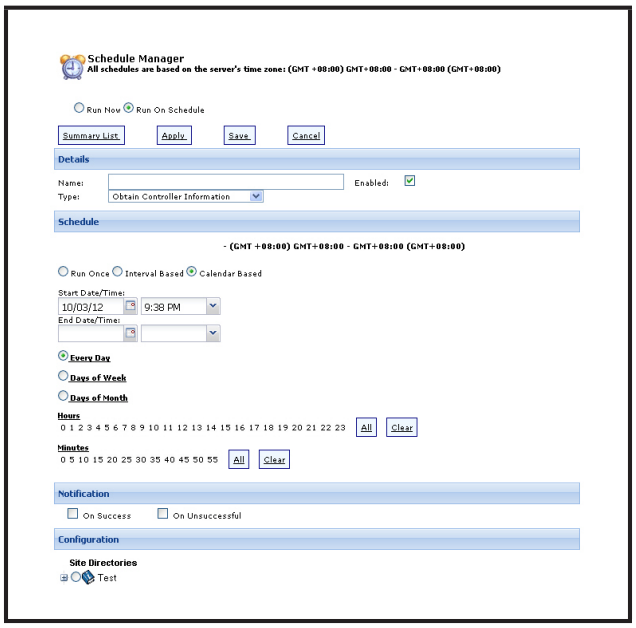


Figure 4-44 *- Scheduling Obtain Controller Information*

Scheduling Firmware Transfer

Use the Schedule Manager to upload the firmware package and/or language package to the server (firmware transfer). Set the **Configuration** and **Firmware Transfer Selections**:

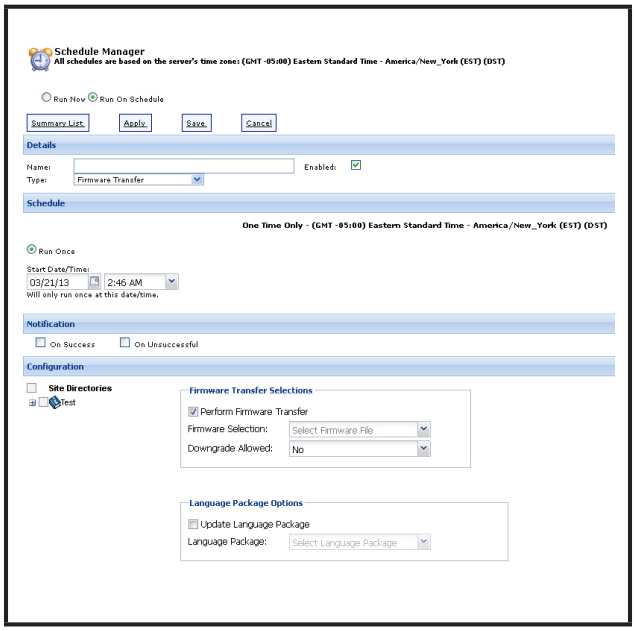


Figure 4-45 *- Scheduling Firmware Transfer*

For more information on Firmware Transfers, see **Section 6.2., *Firmware Transfer***.

Scheduling Upload Description File

A description file is a file used to add functionality into the E2 controller. To run this activity on a later date, select **Run On Schedule** and configure it from the *Schedule Manager* page.

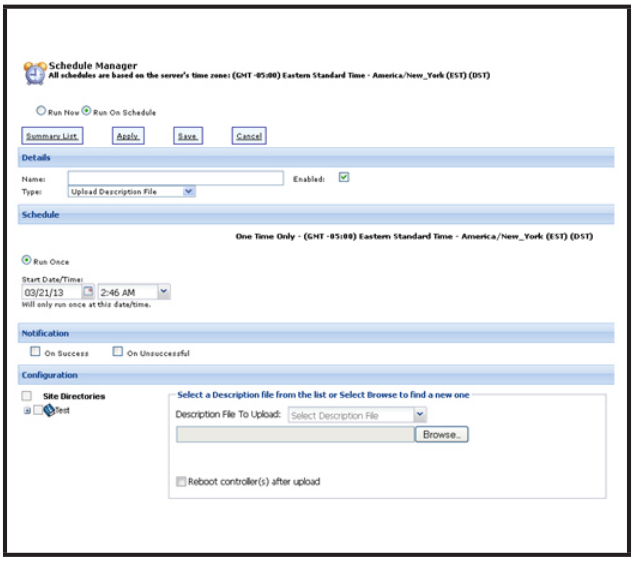


Figure 4-46 *- Scheduling Upload Description File*

NOTE: This Activity can be scheduled, but not recurring.

See **Section 5.6.9.1., *Description File Upload to the E2 Controller*** for more information on uploading description files.

4.2.4.3. Filtering Rules

Filtering Rules is a configuration of the Retrieve Logs, Retrieve Logs From List, Setpoint Broadcast, Refresh Point List, and Backup activities. Use the Filter Rules List when retrieving logs for directories, sites, control systems, or units. This will configure the Retrieve Log activity by filtering which logs you wish to retrieve. Select the applications by enabling the application checkboxes and clicking **Go**.

If you wish Site Manager to retrieve logs automatically at a specified time for each day, enable the **Run On Schedule** option you will be directed to the Schedule Manager page. Enable the **Run Now** checkbox if you wish to retrieve logs now. Set up multiple

schedules for multiple days from the Schedule Manager. Click the **Go** button to run the activity and retrieve logs.

Logs can be retrieved hierarchically from the Directory level all the way to the Point level.

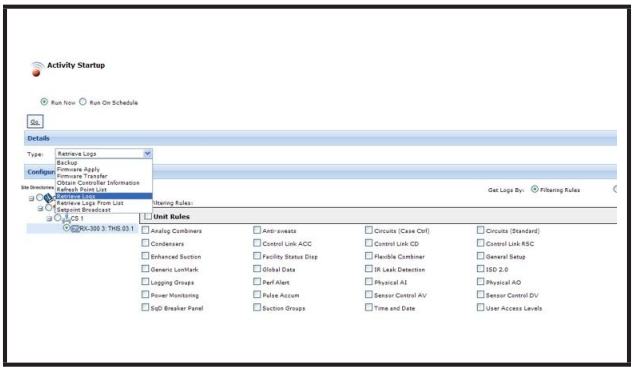


Figure 4-47 *- Filtering Rules*

4.2.5. Send Email

This page allows you to create and send emails to users of Site Manager. To go to this page, click the **Admin Tools** menu, then click **Send Email**. The *Send Email* page opens (***Figure 4-48***).

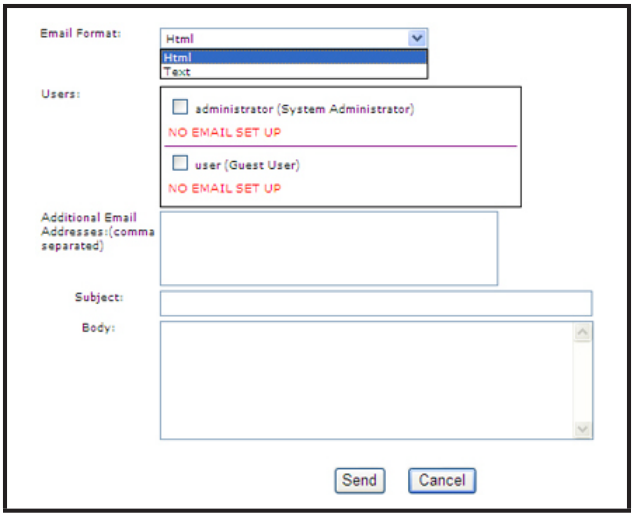


Figure 4-48 *- Send Email Page*

To send an email from this page:

1. Select the format of your email from the **Email Format** drop list (HTML or Text).
2. In the **Users** list, select your e-mail recipients by enabling the checkbox next to the name of the user. (Names and e-mail addresses of users saved to the database will display in this list.) If an email address was not provided during user setup, a NO EMAIL SET UP will display below the user name.
3. If your recipient is not in the list or the user email address is not set up, enter the recipient's email address in the **Additional Email Addresses** field. Separate email addresses with a comma "**,**".
4. Type your message in the **Body** field and provide a **Subject** for your email (required).
5. Click **Send**. A message will display if the email was sent successfully. Click **Cancel** if you wish to cancel Send Email.

NOTE: SMTP has to be set up initially to enable this feature.

NOTE: The Send Email is an Admin group default privilege; lower level groups must be assigned of this privilege to access this page. For assistance, contact your system administrator.

4.3. Activities Menu

4.3.1. Advisory Menus

4.3.1.1. Connection Verification Report

This report allows users to determine which sites in the navigation tree are in good communication status and which sites are not (problem sites). To know more about this advisory report, refer to **Section 7.2.1.,** ***Connection Verification Report***.

4.3.1.2. Purge Inbound Connections

Purge Inbound Connection allows you to set purge configurations for inbound connection records. For more information about this advisory configuration, see **Section 7.2.2.,** ***Purge Inbound Connections***.

4.3.1.3. Advisory Forwarding

With the Advisory Forwarding feature, advisories can be forwarded to an email address. See **Section 7.2.3.,** ***Advisory Forwarding*** for more information about advisory forwarding.

4.3.2. Setpoint Broadcast

When store hours change or special events occur, scheduling a Setpoint Broadcast can send data to multiple groups, sites, and/or multiple controllers at one site, and provides the ability to send setpoint and parameter information across a single enterprise.

Based on the user's privilege, all configured setpoint broadcasts will be displayed (if any). If there are no existing setpoint broadcasts scheduled in the system, you will be taken directly to the *Schedule Manager* page with the activity **Type** pre-filled to Setpoint Broadcast.

To configure a setpoint broadcast, select **Setpoint Broadcast** from the **Type** drop down. If **Run Now** is selected, click **Go** when you are ready to run the broadcast, and the broadcast will be run immediately instead of according to a schedule. Click **Run On Schedule** to run the broadcast according to the schedule details.

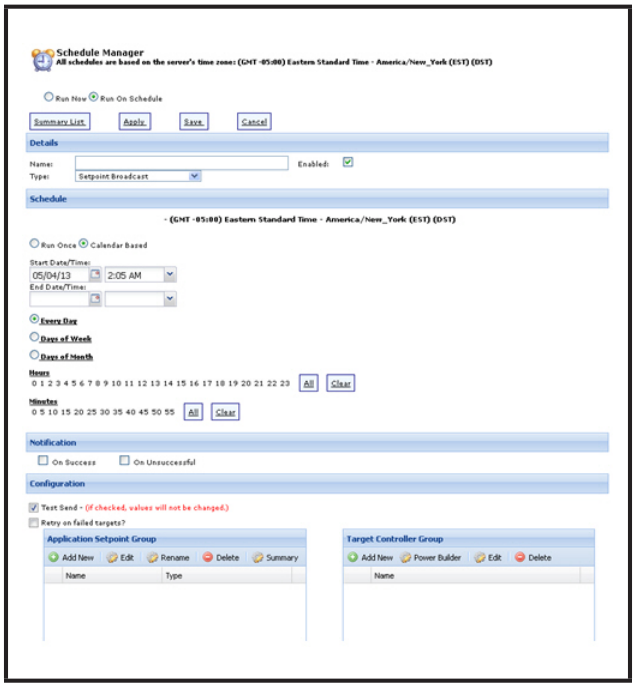


***Figure 4-49** - Configuring Setpoint Broadcast*

Running Setpoint Broadcast on a schedule

Enter unique name for each setpoint broadcast in the **Name** field. You will be notified if the name already exists in the database and prompted to rename the broadcast before you can save. This field cannot be left blank.

Choose how often the broadcast will be run: one-time only, at intervals, or based on calendar information:

- **Run Once:** For one-time only broadcasts, enter the start date and time the broadcast will be run. The broadcast will only be run at that date and time. (Only the options for **Run Once** will be visible.)
- **Interval-Based Schedules:** For running the broadcast based on an interval, enter start/end date and time and interval information in the HH:MM format provided. Enter the number of how many times the broadcast should repeat in the **Number of times to repeat** field. Leave this field blank if you would like the process to repeat indefinitely. (Only the options for **Interval Based** will be visible.)
- **Calendar-Based Schedules:** For running the broadcast based on calendar information, enter the start/end date and time and choose how often the broadcast will occur (daily, weekly, monthly). When a day of the week or month is selected or multi-selected, they become highlighted. Choose **ALL** to select everything in the list or **Clear** to deselect and start over.

Email Notification

Notification can be sent concerning the status of the schedule based on two options:

- **On Success:** Activity was successful.
- **On Unsuccessful:** Activity was unsuccessful, which means partially completed or failed.

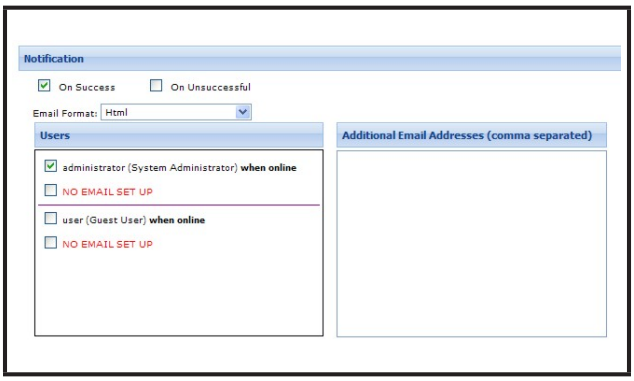


***Figure 4-50** - Notify Setpoint Broadcast*

If either option is selected, the notification can be configured. Two notification options are available:

- **Pop-up:** A popup message will open if you are logged into the system at the time the message is sent out. The message will include the name of the schedule, type, user, and status. Click **OK** to close

the pop-up.

- **Email:** An email will be sent to the specified users or e-mail addresses entered.

There are three options for E-mail Format: **HTML**, **Text**, or **Cell Phone/SMS Optimized**.

The email message will include the name of the schedule, type, user and status.

The SMS message will include the name of the schedule and status.

A list of all users will be displayed. If an e-mail address was added when the user was set up in the system, the e-mail address will be presented below the username. If no email address was entered, **NO EMAIL SETUP** will appear in red text.

Users will have two notification options available:

- **When Online** – A popup message will be presented, if you are logged into the system at the time the message is sent out.
- **Via Email** – An email will be sent to the specified users' email addresses.

The message will include the name of the schedule, type, user and status.

To close the popup, click **OK**.

Both an email and popup messages can be sent to users.

Enter additional email addresses and separate them with commas (if more than one e-mail is entered).

Emails will be validated and the system will prompt you if the syntax of an email address is not correct.

Configuration

Test Send checkbox: (When Setpoint Broadcast is set as the type of Schedule) When this box is checked, a Test Send will perform all steps of an actual setpoint broadcast (except it will not actually execute the send). The message in red (as shown in ***Figure 4-51***) next to the **Test Send** checkbox will notify the users that selecting the checkbox will not actually send the values.

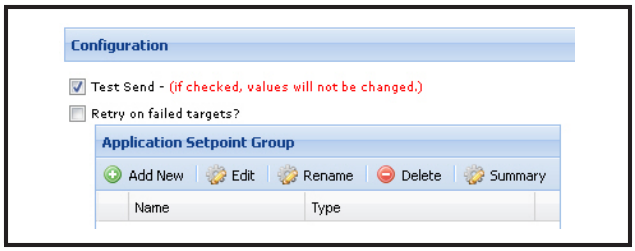


Figure 4-51 - *Test Send Checkbox*

Test Send, if selected, will connect to the device and retrieve any information needed and test for valid points. This test will show up in the Schedule Manager as a setpoint broadcast entry. You do not have to recreate the schedule, but can edit the schedule and uncheck the Test Send option (the details of the test will be available on the activity history page once the test has completed). You will know that the setpoint broadcast was only a Test Send because it will be part of the activity history details message.

Retry on failed targets? checkbox: (Both on demand and scheduled Setpoint Broadcasts supported) When this box is checked, Setpoint Broadcast will rerun automatically on sites that failed or did not complete the initial broadcast. Setpoint broadcast will continue to run on each of these sites until the activity is completed on them or until the set number of retries is reached, whichever comes first.

(For scheduled Setpoint Broadcasts only) If Setpoint Broadcast still fails on a number of target control systems after the set number of retries, a file containing information about the sites and control systems that failed the activity will be generated in a sub folder under the vault (database) folder.

Details of the retry activity will be recorded in the Activity History page once the setpoint broadcast is completed.

NOTE: The default number of setpoint broadcast retries is 3. This value can be changed from the Properties Editor under "setpointBroadcast.maxRetrialTimes". The user must have super user privileges to change the default value.

Application Setpoint Group and Target

Controller Group screens (When Setpoint Broadcast is set as the type of Schedule) (E2/ Einstein controllers only):

You can set up a **Target Controller Group** where all application data in the Application Setpoint Groups will be sent. You can also create, edit, and delete these groups.

To create an Application Setpoint Group, click the **Add New** button in the *Application Setpoint Group* section (***Figure 4-52***).

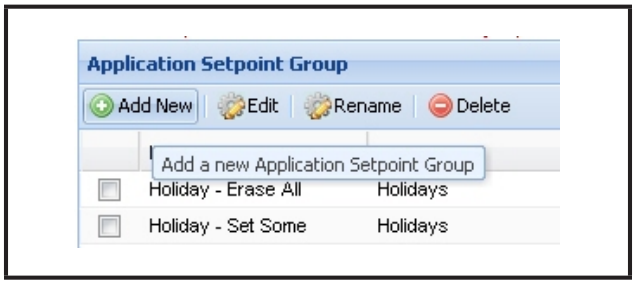


Figure 4-52 *- Application Setpoint Group Section*

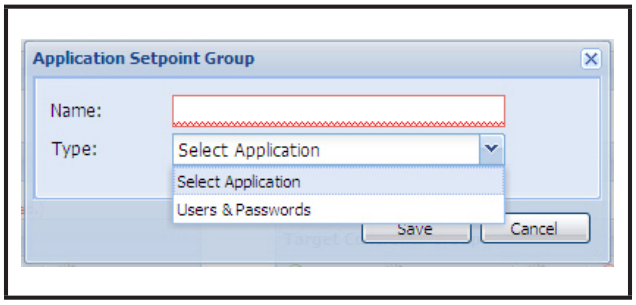


Figure 4-53 *- Application Setpoint Group Screen*

Give the group a unique name. (You will be prompted if the name entered matches an application setpoint group already in the database.)

Choose a type of schedule from the **Type** drop-down: **Select Application** or **Users & Passwords**. Once a type of schedule is chosen from the list, click **Save** to open the schedule screen of the chosen schedule type.

- If **Users & Passwords** is chosen as the schedule type, the *Users & Passwords* schedule screen will open with tables and rows to be filled in; configure the schedule details from this screen. See **Schedules Setup on page 39** for more details on setting up User & Passwords schedules.
- If **Select Application** is chosen as the schedule type, the *Select Application* screen (***Figure 4-54***) will open with the navigation tree displayed. Expand the navigation tree down to the application instance level, click the radio button of the application instance, and then click the **Save** button. The *Application Setpoint Group* screen of the selected application instance will open where you can select data points to use for setpoint broadcast (see **Schedules Setup on page 39** for details on setting up Application Setpoint Groups).

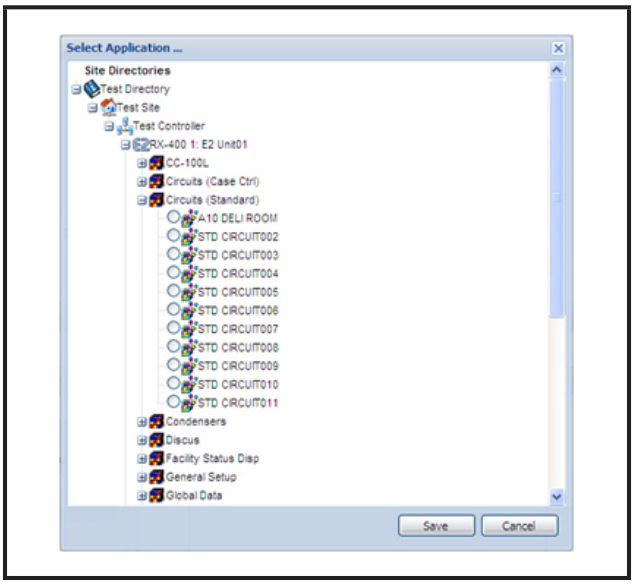


Figure 4-54 *- Select Application Screen*

If there are no valid applications selected when the setpoint broadcast runs, that information will be in the Activity History details.

The information you enter in the Application Setpoint Group will be sent to the **Target Controller Group**.

Click **Add New** in the *Target Controller Group* window:

Figure 4-55 *- Target Controller Group*

Click **Power Builder** to open the *List Powers Builder* window where you can manage your target controller groups (see **Section 8.2.1., *List Power Builder***).

Give the group a unique name. (You will be prompted if the name entered matches a target group already in the database.)

The tree will be displayed that will mimic the navigation tree, but it will be filtered to show only application types supported for this version of setpoint broadcast.

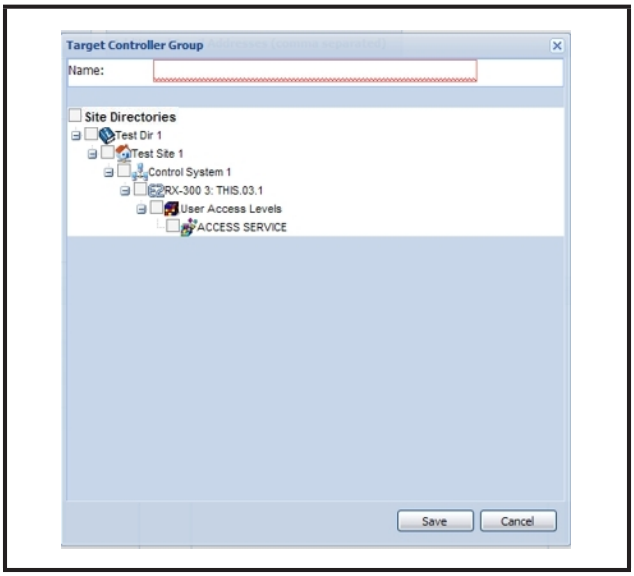


***Figure 4-56** - Configuring New Target Controller Group*

Selecting a top node will automatically select all child nodes underneath.

Once the selection(s) have been made, click the **Save** button. (At least one selection must be made.)

When specific child application nodes are selected only those selected applications will be processed by the Setpoint Broadcast.

If there are no valid applications selected when the setpoint broadcast runs, that information will be saved and visible in the Activity History details.

4.3.2.1. Schedules Setup

For all schedule pages:

The field selection control is identified with the image of light grey dot to the right of the field. Use the mouse and click to toggle on the image.

The Dot image identifies the field as one that will not be saved to the controller. The Lightning Bolt image identifies the field as one that will be saved to the controller and will clear out the contents of the field.

When a field is changed by adding data, the selection image changes to the lightning bolt.

Character Deletion: When the lightning bolt image is displayed and data is deleted from the field by using the standard method of character deletion (backspace key, delete key, control-x, mouse select / cut) the image will not change. The image must be clicked to change the state to the Dot image if field data was not expected to be saved to the controller.

About Blank Fields: Blank fields can send blank data to clear out a specific property in the controller. Blank data fields can be selected by clicking on the Dot image. This will change the selected state to the Lightning Bolt image that identifies the field to be sent to the controller.

Once you select the desired application, click **Save** to open the respective page where you can make the setpoint changes.

Users and Passwords Schedules Example:

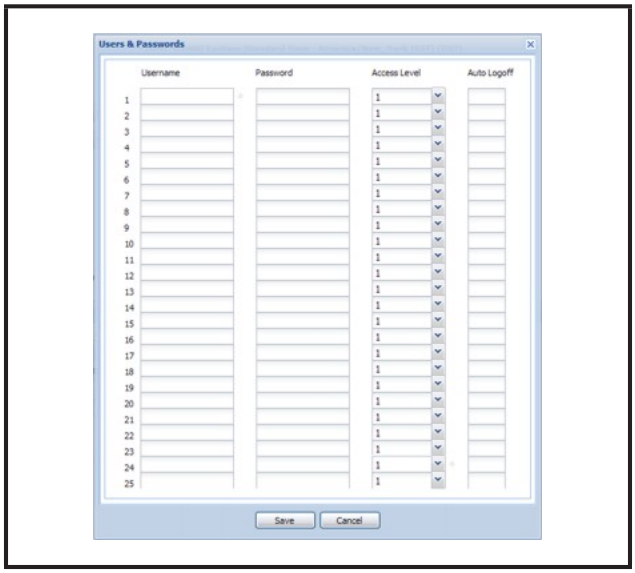


***Figure 4-57** - Users and Passwords Schedule Page*

This schedule includes 25 User names, passwords, access levels, and auto log-offs.

Only properties whose values have been entered will be sent.

Clicking **Save** will save the information entered and close the pop up window.

Cancel will not save any data and will close the pop up window.

Application Setpoint Group Example:

When you have chosen the desired application instance from the *Select Application* window (***Figure 4-54***) and clicked the **Save** button, the *Application Setpoint Group* screen for that particular application will open and display the current application information from the controller. ***Figure 4-58*** shows an example of an Application Setpoint Group screen of a Standard Circuit.

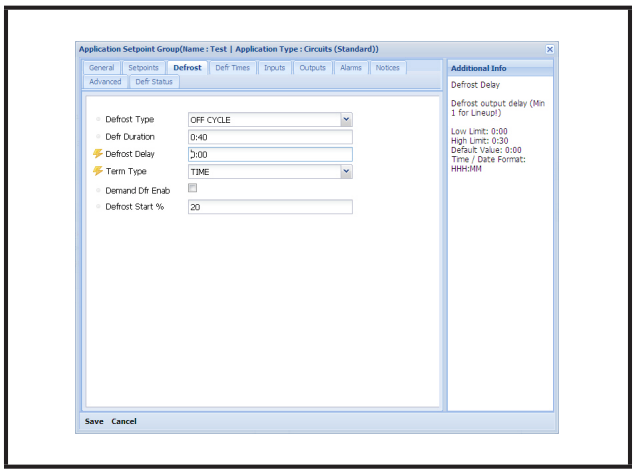


Figure 4-58 *- Application Setpoint Group window (Standard Circuits shown)*

The *Application Setpoint Group* screen has tabs containing fields (or points) whose values can be sent during setpoint broadcast. Click the Dot image next to the field name to select the point(s) you wish to send during broadcast. (Note that when the Dot image is clicked, it will be replaced with a Lightning Bolt image to indicate that the point or points have been selected.) Switch through tabs to view and select more points for broadcast. You can also change point values and configure log and alarms from this screen by entering your changes in the point value fields.

Click the **Save** button from this screen to save the list of points selected for broadcast along with your changes, or click **Cancel** to cancel your changes and navigate away from the screen.

When saved, the new application setpoint group will add in the list of current application setpoint groups.

NOTE: An Application Setpoint Group can be used in as many setpoint broadcasts as desired.

5 Navigation Tree

5.1. Using the Navigation Tree

The navigation tree is located on the left-hand side of the screen inside the navigation window.

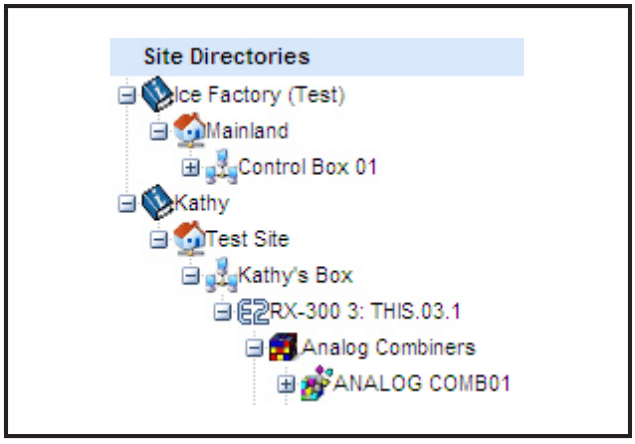


Figure 5-1 *- Site Manager Navigation Tree*

The navigation tree comprises four levels: Directories, Sites, Control Systems, and Units. The navigation tree will load directories, sites, control systems, and units. The applications are located next to the folder icons, with any application types listed underneath the folders next to the box icons. Application types are user-defined and can be of one or more in quantity.

Navigate through the tree by clicking on the applications and right-click to open the available menus. Users will have access to menu choices depending on what privileges have been set for them.

Each level or "node" in the Site Manager Navigation Tree has an icon to illustrate the tree level it belongs to. Each node icon precedes every node description. Application types, application instances, and points are also are represented by icons.

Icon	Description
	Directory level
	Site level
	Control System level
	Unit level (E2)
	Unit level (E1)
	Application type
	Application instance
	Input point
	Output point
	Parameter
	Virtual point

Table 5-1 *- Navigation Tree Icons and Symbols*

Plus and minus signs placed before the tree level icons function to expand or collapse tree elements.

- Click on to expand a tree element
- Click on to collapse a tree element

All menus and submenus in the navigation tree are also represented by icons. These are either placed right before or after each menu definition to assist users in easily identifying and locating available menus.

Icon	Description
	Indicates a submenu of items are available
	Add
	Delete
	Edit
	View information about the item on the properties page

Table 5-2 *- Navigation Tree Icons*

Icon	Description
	Advisory Receiver Commissioning
	Forward Advisories
	View Historical and Live Advisories
	Configuration for this item; admin activities
	Activity History or Pending Activities of the user (called “My Activity History” or “My Pending Activities”)
	The activity selected will run immediately when clicked
	The item selected can be scheduled
	System-created GS Screen
	User-created GS Screen
	Associate GS Screen
	Import GS Screen

Table 5-2 *- Navigation Tree Icons*

5.2. Directory

A **directory** displays all the information that is related to a directory, including sub-directories, activities, configuration, and property information about the directory. It holds a list of multiple sites and/or directories. Clicking on a directory will open the properties page for the directory in the main navigation window. Right-click for **More Directory Tasks** menu.

5.2.1. Add Site

To add a site, use the Directory menu from the navigation tree and click **Add Site**. The *Site Configuration* page opens.

Enter **Name** (required field), **Parent Directory**, **Address**, **Country**, **Voice Phone**, and **Time Zone** information. Click the **Save** button to save or the **Cancel** button to clear and exit the page. If **United States** is selected as the country, a drop-down menu with all the states will be shown. If another country is selected, the **State/Province/Region** drop-down menu will be changed to a blank text field to allow a name to be entered in the field.

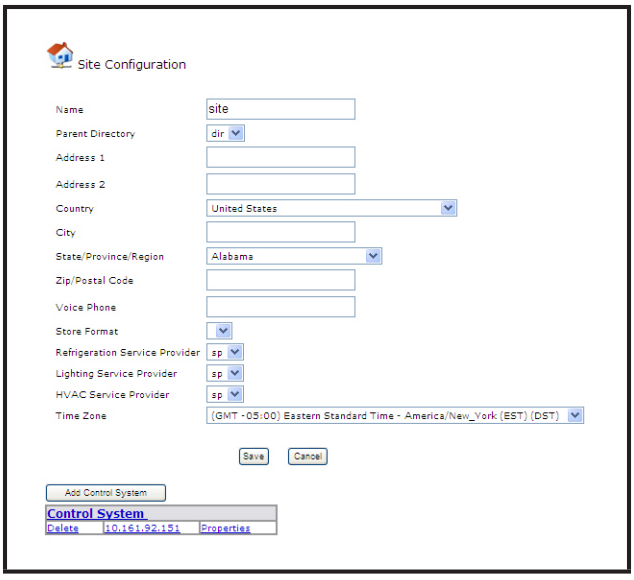


Figure 5-2 *- Site Configuration Page*

NOTE: Click the Refresh button on the top of the navigation tree to see the new site you added. The Windows refresh button on the browser will log the user off.

5.2.2. Add Directory

To add a directory, right-click the Site Manager root menu at the top of the tree and click **Add Directory**, or use the Directory menu from the navigation tree and click **Add Directory** on the **More Directory Tasks** flyout menu.

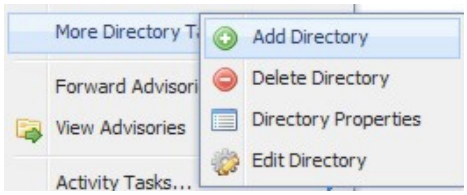


Figure 5-3 *- Add Directory Menu*

The *Directory Configuration* page opens.

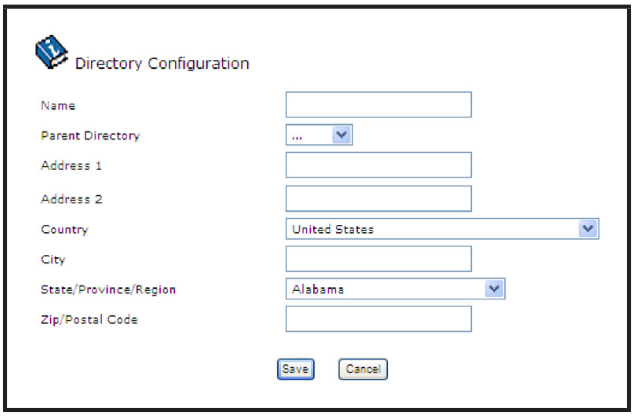


Figure 5-4 *- Directory Configuration Page*

Enter **Name** (required field), **Parent Directory** (if applicable), **Active Status**, **Address**, and **Country** information. Click the **Save** button to save or the **Cancel** button to clear and exit the page.

5.2.3. Directory Properties

If **Directory Properties** is clicked from the navigation tree, the *Directory Properties* page opens displaying the directories, sites, activities associated with that property, configurables, and property address. Every Directory will have a properties page.

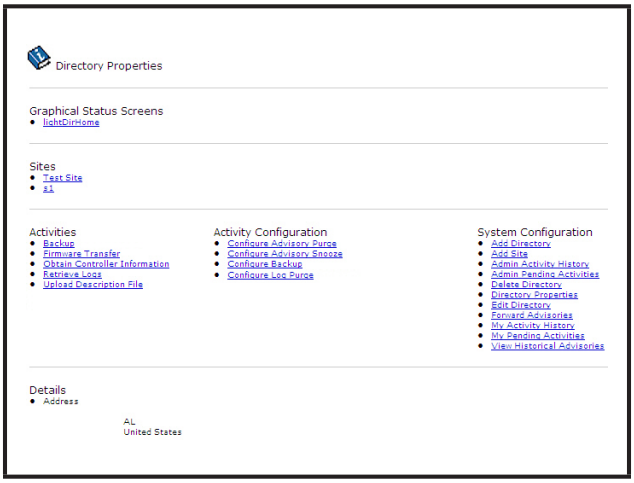


Figure 5-5 *- Directory Properties Page*

5.2.4. Delete Directory

To delete a directory, select **Delete Directory** from the desired Directory's right-click menu in the navigation tree.

A message window will open and ask if you want to delete the directory. Click **OK** to delete, **Cancel** to exit.

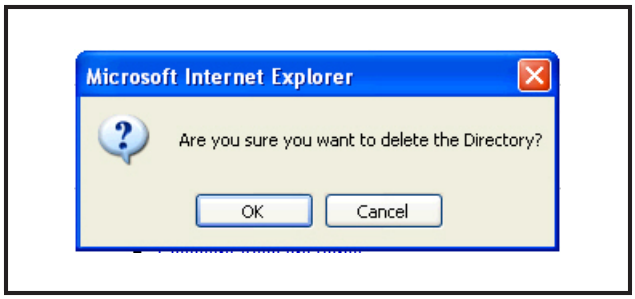


Figure 5-6 *- Delete Directory Message Window*

5.2.5. Edit/Configure Directory

To make changes to a directory, click the **Edit Directory** menu from the desired directory's mouse-over/right-click menu in the navigation tree. The *Directory Configuration* page opens:

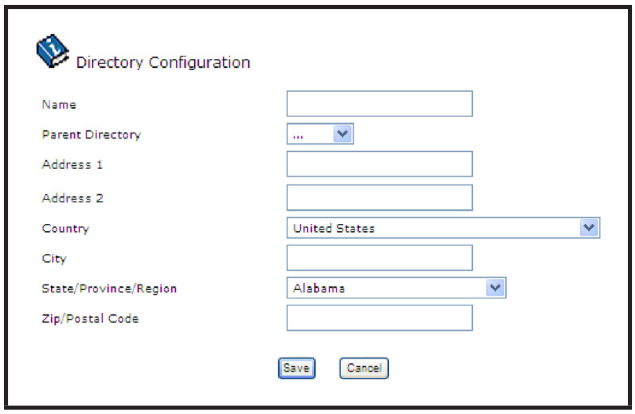


Figure 5-7 *- Directory Configuration Page*

If **United States** is selected as the country, a drop-down menu with all the states will be shown. If another country is selected, the **State/Province/Region** drop-down menu will be changed to a blank text field to allow a name to be entered in the field.

Enter the desired changes in the **Name**, **Parent Directory**, **Address**, and **Country** fields.

Click the **Save** button to save changes or the **Cancel** button to clear and exit the page.

5.3. Site

A **site** is the name for a collection of one or more control systems in one physical location such as a grocery store. Under each site, there will be a Control System with listed units such as Einstein or E2.

Clicking on the site will open the properties page for the site in the main navigation window. Right-click for the **More Site Tasks** menu.

5.3.1. Add Control System

To add a Control System, use the desired Site's mouse-over/right-click menu from the navigation tree and click **Add Control System**. The *Control System Configuration* page opens:

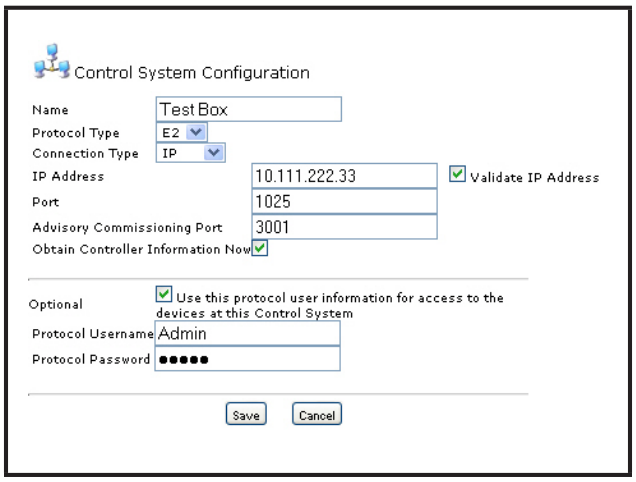


Figure 5-8 *- Control System Configuration Page*

Enter **Name** (required field), **Protocol Type**, **Connection Type**, **IP Address** (required field), and **Port** information. Click the **Save** button to save or the **Cancel** button to clear and exit the page.

- Enter a name for the control system in the **Name** field. This name will appear in the navigation tree.
- Set the **Protocol Type** to E1 or E2 depending on the type of controller you are using.
- The **Connection Type** is defaulted to **IP**.
- Enter the IP address of the controller to which you are connecting in the **IP Address** field. If the **Validate IP Address** checkbox is enabled (default), only a valid IP address will be accepted. If an invalid address is entered, a message will appear to notify you that an invalid address has been entered.
- Enter the Port number of the device to which you are connecting in the **Port** field.
- The **Advisory Commissioning Port** is the port used for receiving advisories after commissioning is complete.
- The **Obtain Controller Information Now** checkbox appears only when adding a new control system (not available on Edit Control System). If this checkbox is enabled (default), Site Manager will automatically connect to the control system and refresh all Unit, Application and Point lists under that controller.

Optional section: If this protocol checkbox is enabled at the control system level, Site Manager will use the protocol information entered on this page and *bypass* the information at the Group level for *only the units located under this control system*. Normally, security settings for Site Manager are defaulted at the Group Configuration level.

Click the **Save** button to save or the **Cancel** button to clear and exit the page.

NOTE: A control system cannot be added from a Control System menu. You must create a control system from a Site. A Control System is a descendant level of a Site.

5.3.2. Delete Site

To delete a site, select **Delete Site** from the desired Site's menu in the navigation tree (under the **More Site Tasks** flyout menu).

A message window will open and ask if you want to delete the site. Click **OK** to delete, **Cancel** to exit.

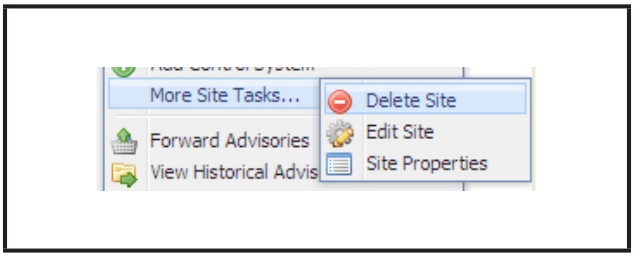


Figure 5-9 *- Delete Site*

5.3.3. Edit/Configure Site

To make changes to a site, click **Edit Site** from the desired site's mouse-over/right-click menu in the navigation tree (under the **More Site Tasks** fly-out menu). The *Site Configuration* page opens (***Figure 5-10***):

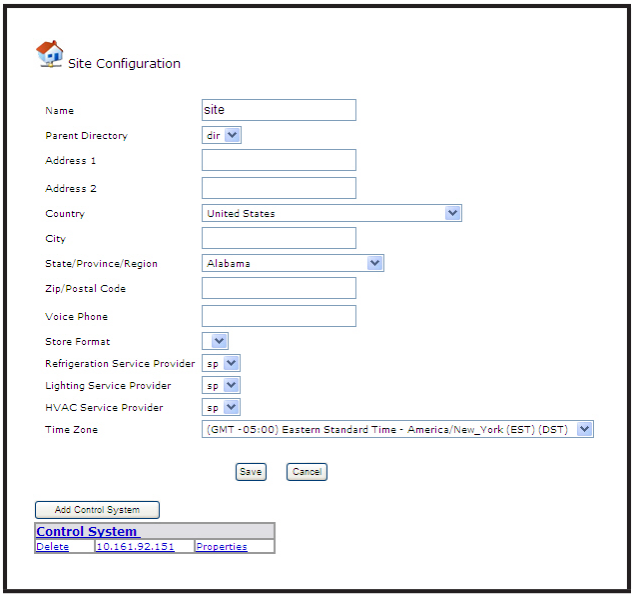


Figure 5-10 *- Site Configuration Page*

Enter the desired changes in the **Name** (required field), **Parent Directory**, **Address**, **Country**, **Voice Phone**, and **Time Zone** fields. If **United States** is selected as the country, a drop-down menu with all the states will be shown. If another country is selected, the **State/Province/Region** drop-down menu will be changed to a blank text field to allow a name to be entered in the field.

Click the **Save** button to save changes or the **Cancel** button to clear and exit the page.

NOTE: At the Site level in the tree, Control Systems can be added and deleted from this page. Click Add Control System to open the Control System Configuration page. Click the Delete link next to the control system you wish to delete.

5.3.4. Site Properties

If **Site Properties** is clicked from the navigation tree, (under the **More Site Tasks** flyout menu) the *Site Properties* page opens displaying the active control systems, all Activities associated with that property, configurables, and details about the site.

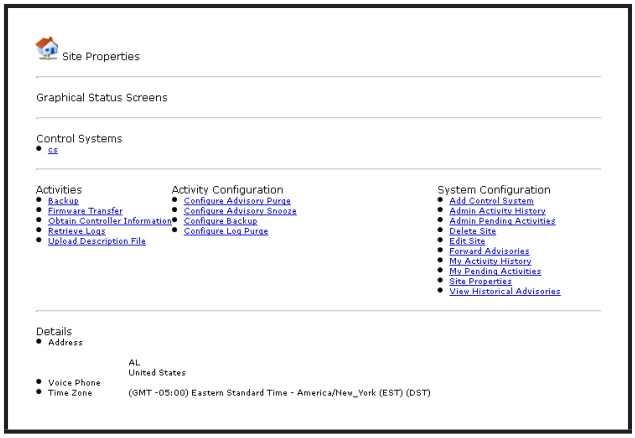


Figure 5-11 *- Site Properties Page*

5.4. Control System

A **control system** is a set of controllers with one point of connection in one localized physical place, such as a grocery store. Clicking on the control system will open the properties page for that control system. Right-click for the **Control System Tasks** menu.

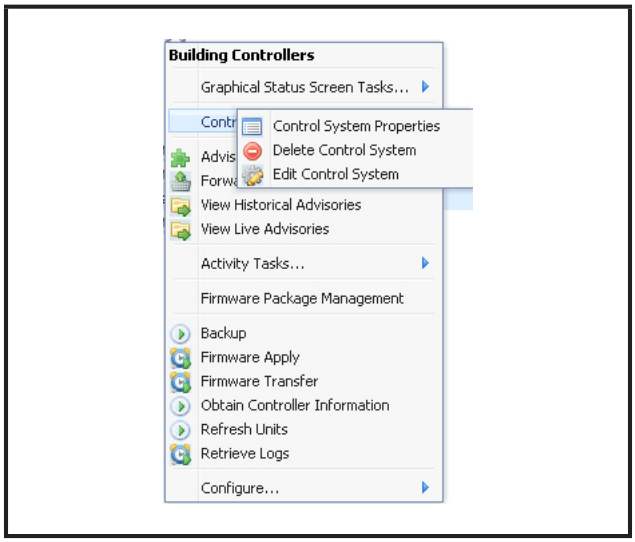


Figure 5-12 *- Control System Level Menus*

5.4.1. Control System Properties

If **Control System Properties** is clicked from the navigation tree, the *Control System Properties* page opens displaying the units, all activities associated with that control system, configurables, and details about the control system.

***Figure 5-13** - Control System Properties Page*

Each control system has a properties page. It displays all the information that is related to a control system, including sub-directories, activities to perform, and configuration information.

Under each Control System, there will be 0 or more Units of that control system type such as **Rack A** or **HVAC**. (Site Manager will allow a tree with more than one control system of the same type in each site).

The available units will be loaded once the user clicks on the plus sign next to the control system to be opened.

You may also right-click on the control system in the navigation tree and select **Refresh Units** from the navigation tree.

- **Units**: All units that have been set up for this control system.
- **Activities**: Lists any activities that may be performed on the control system.
- **Activity Configuration**: Activities that can be configured at the control system level can also be accessed from this page.
- **System Configuration**: Opens the *Activity History - Results* page for the chosen control system and its entities. Firmware can be managed from this section (see **Section 6.1., *Firmware Package Management***).
- **Details**: Connection specifics.

5.4.2. Delete Control System

To delete a control system, select **Delete Control System** from the **Control System Tasks** fly-out menu in the navigation tree, or go to the *Site Configuration* page.

A message window will open and ask if you want to delete the control system. Click **OK** to delete, **Cancel** to exit.

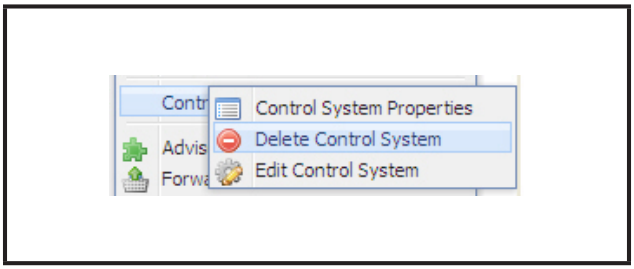


***Figure 5-14** - Delete Control System*

5.4.3. Edit/Configure Control System

To make changes to a control system, click **Edit Control System** from the desired control system's mouse-over/right-click menu in the navigation tree. The *Control System Configuration* page opens:

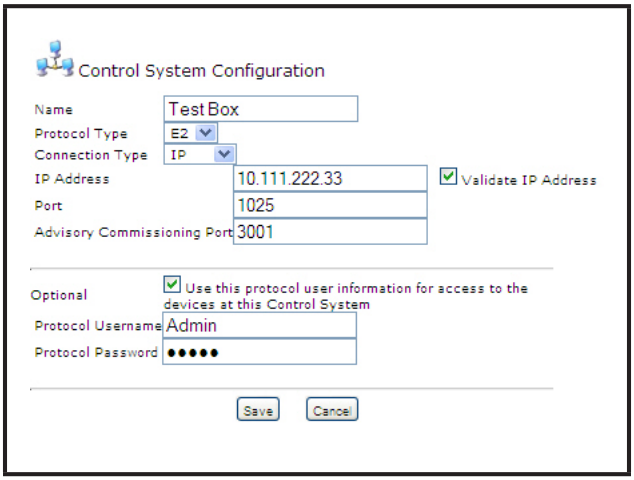


***Figure 5-15** - Control System Configuration Page*

- Enter a name for the control system in the **Name**

field. This name will appear in the navigation tree.

- Set the **Protocol Type** to E1 or E2 depending on the type of controller you are using.
- The **Connection Type** is defaulted to **IP**.
- Enter the IP address of the controller to which you are connecting in the **IP Address** field. If the **Validate IP Address** checkbox is enabled (default), only a valid IP address will be accepted. If an invalid address is entered, a message will appear to notify you that an invalid address has been entered.
- Enter the Port number of the device to which you are connecting in the **Port** field.
- The **Advisory Commissioning Port** is the port used for receiving advisories after commissioning is complete.

The Protocol Access Level (PAL) at the Control System level can be configured under the **Optional** section by checking the checkbox and entering a username and password in the **Protocol Username** and **Protocol Password** fields. Site Manager will use the protocol information entered on this page (if there is any) and bypass the information at the Group level for *only the units located under this control system*.

Click the **Save** button to save or the **Cancel** button to clear and exit the page.

NOTE: The Add Control System menu is not present at the control system level. To add a control system, go back to site level, right- click and select Add Control System menu. This will bring you to the Control System Configuration page.

5.4.3.1. Advisory Receiver Commission

Clicking on **Advisory Receiver Commission** menu opens the *Advisory Receiver Commission* page where various advisory configurations can be set. This menu is unique at the Control System level.

For detailed discussion on this topic, see **Section 7.2.4., *Advisory Receiver Commissioning***.

5.5. Unit

A **unit** is an individual controller at a site in a control system. There may be more than one unit in each control system and should be one gateway unit per one system of units. Clicking the unit from the navigation tree will open the unit's properties page in the main navigation window.

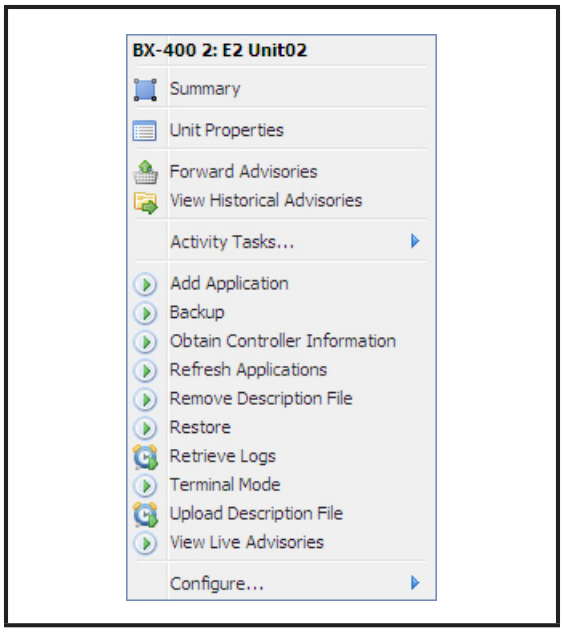


Figure 5-16 *- Unit Level Menus*

5.5.1. Unit Properties

If **Unit Properties** is clicked from the navigation tree, the *Unit Properties* page opens displaying the applications, activities, configurations, and details about the unit.

Figure 5-17 *- Unit Properties Page*

- **Applications**: Applications that have programmed

inside the controller are visible.

- **Activities**: Activities that may be performed on the unit. Link to **Terminal Mode** is present and unique at this level.
- **Configuration**: Lists all configurables for the unit.
- **Details**: Connection specifics and backup information.

5.5.2. Add Application Instance

To add an application instance or multiple application instances, right-click a Unit or an Application Type and choose **Add Application**. The *Add Application* page will open where you cane enter the number of applications to add and the name of the application.

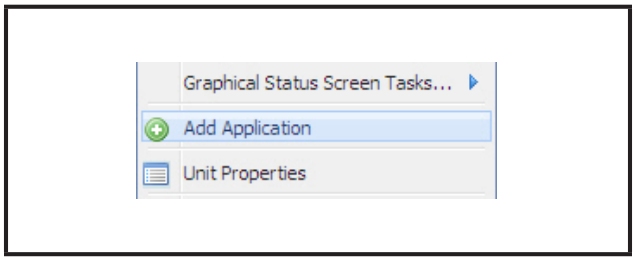


Figure 5-18 *- Add Application Menu*

To add an application instance from an application type, right-click on an application type from the tree and select **Add Application**. The *Add Application* page opens:

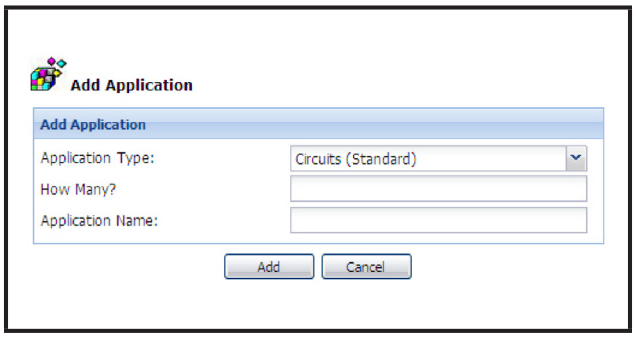


Figure 5-19 *- Add Application Page*

- **Application Type** - type of application instance you want to add. Scroll down and select an application type you wish to add from the drop list.
- **How Many?** - Enter the number of applications in this field. This allows you to add more than one application of the same type with one add command.
- **Application Name** - Assign a name for the application you wish to add (max of 15 characters). If the name assigned to the application is already in use, a number will append at the end of the name to differentiate one from the other (e.g., TEST, TEST001, TEST002, etc). If more than one application is added with one command, the same naming rule will apply.

Click the **Add** button to send the information to the controller (the *Add Application* activity screen will display), or click **Cancel** to exit the page.

A page similar to ***Figure 5-20*** will display if the application was added successfully. The name of the new application will show in the navigation tree.

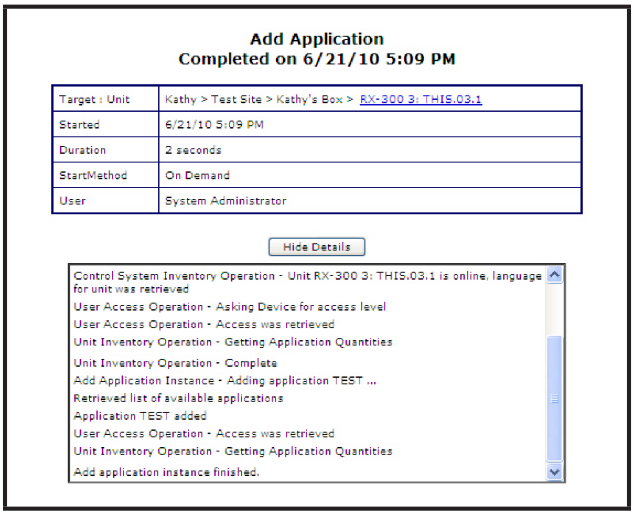

Add Application
Completed on 6/21/10 5:09 PM
Target : Unit
Kathy > Test Site > Kathy's Box > RX-300 3: THIS.03.1
Started
6/21/10 5:09 PM
Duration
2 seconds
StartMethod
On Demand
User
System Administrator
Hide Details
Control System Inventory Operation - Unit RX-300 3: THIS.03.1 is online, language for unit was retrieved
User Access Operation - Asking Device for access level
User Access Operation - Access was retrieved
Unit Inventory Operation - Getting Application Quantities
Unit Inventory Operation - Complete
Add Application Instance - Adding application TEST ...
Retrieved list of available applications
Application TEST added
User Access Operation - Access was retrieved
Unit Inventory Operation - Getting Application Quantities
Add application instance finished.

Figure 5-20 *- Add Application Activity Screen*

See the error information in the *Activity Details* if the Add Application activity has failed, or refer to *Activity History - Results* page for more details of the error.

5.5.3. Delete Application Instance

To delete an application instance, right-click the application instance, click **Application Tasks** menu, then click **Delete Application Instance**. A pop-up window will open and ask if you are sure. If you delete an application instance, it will delete it from the

controller and the navigation tree in Site Manager. Click **OK** to delete the application instance, **Cancel** to stop.

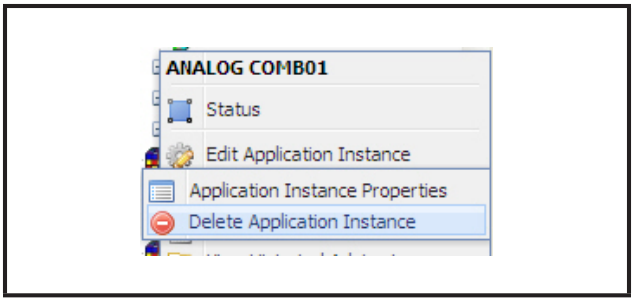


Figure 5-21 *- Delete Application Instance Menu*

Pop-up message:

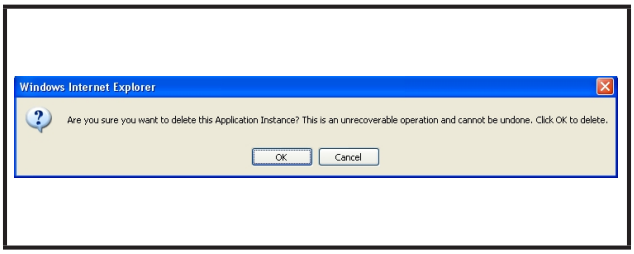

Windows Internet Explorer
Are you sure you want to delete this Application Instance? This is an unrecoverable operation and cannot be undone. Click OK to delete.
OK
Cancel

Figure 5-22 *- Delete Application Instance Message*

A progress window will confirm that the Application Instance has been deleted:

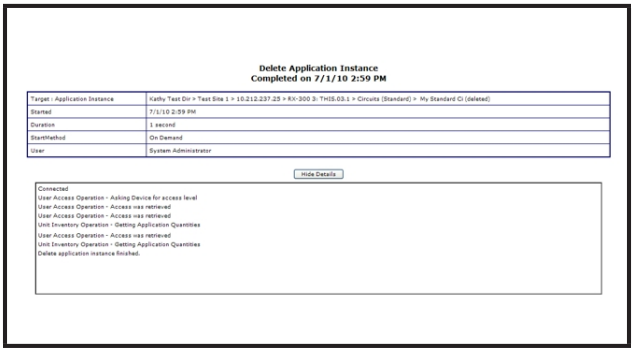


Figure 5-23 *- Application Instance Deleted*

5.5.4. Edit Application Instance

To make changes to an application instance, choose **Edit Application Instance** in the navigation tree (right-click the desired application). Edit Application will be used to change setpoints in an application, and set up Advisory Configuration and Log Configuration in an online controller.

To open the Edit Application page, right-click the desired application instance from the navigation tree, and select **Edit Application Instance**.

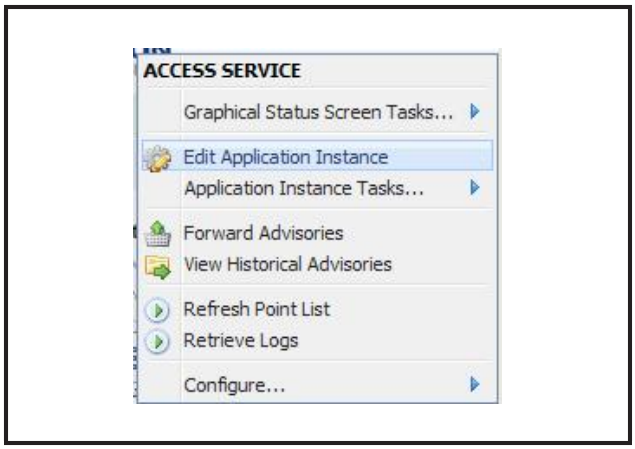


Figure 5-24 *- Edit Application Instance Page*

The *Edit Application* page allows you to perform online remote editing of applications and shows the editable and non-editable point values (or protocol component) of an application instance, which are divided into groups set by the controller. (***Figure 5-25*** shows an example of an Edit Application page of a Suction Group.)

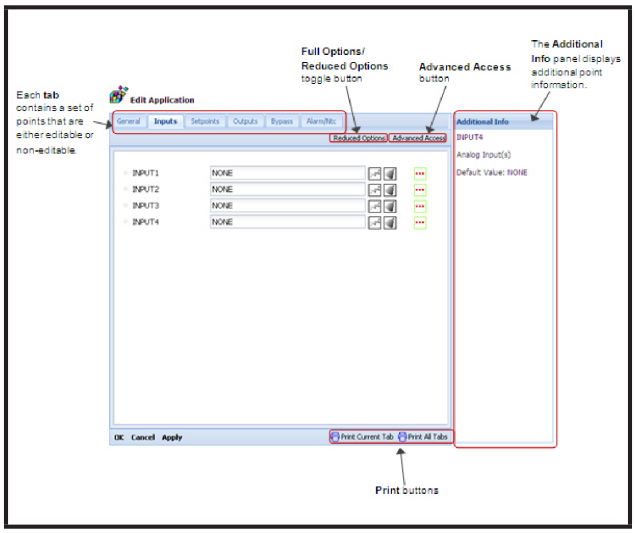

Full Options/ Reduced Options toggle button
Advanced Access button
The Additional Info panel displays additional point information.
Each tab contains a set of points that are either editable or non-editable.
Edit Application
Print buttons

Figure 5-25 *- Edit Application Instance Page*

Each application instance is divided into groups of points. Each group is a tab that contains point names and values. Use your keyboard **tab key** or use your mouse cursor to move between tabs.

- The left column shows the names assigned to points (pre-configured in the controller). Hover the cursor over the names to display its description in the Additional Info panel.
- The right column contains fields where you can enter your changes to point values (can be either editable or non-editable depending on the controller's setup). Values can be of the following types: *text* (enter the value in the field provided), *drop-down* (expand and select from the list), or *checkbox* (click to enable/disable the indicated property). Use the arrow keys on your keyboard to move between values within a tab.

NOTE: Points will vary from one application to another. Point values displayed are set-points, not real-time values. For assistance on points, refer to the appropriate controller user manual.

The icons to the left of the point names indicate whether a point value has changed or not.

- The dot icon indicates that the point value has not changed.
- The lightning bolt icon indicates that the point value has been modified.

Click **Apply** to save the changes to the controller. Changes will apply and all point values will refresh from the controller. You will stay on this same screen.

Click **OK** to save the changes to the controller and exit the page.

If a change was not saved to the controller, the page is enabled and a message appears on top of the page along with a link to Activity Details. The page will then wait for more input.

To exit the screen, click **Cancel**.

- **Full Options**/**Reduced Options** toggle button: Allows you to select the display mode for points. (When Full Options is displayed, the Reduced Options mode is in use, and vice versa.) Full Options allows you to view more points than in the Reduced Options. By default, the page is set to Full Options; click the toggle button to shift modes.
- **Advanced Access** and **Normal Access** toggle button: Click this button to display Level 5 properties in the page. A pop-up window will show on the page and ask you to enter a valid password. Click **OK** after entering the password. If the password is correct, the user will be able to view additional fields that were not available previously. If the password that was entered is invalid, an error pop-up message will display and the screen remains unchanged.
- **Print Current Tab**/**Print All Tabs**: The print buttons beneath the window give you the ability to print point information. If a print button is clicked, all point information shown will show in a new window. Click **Print Current Tab** to print the information that is related to the tab you are currently viewing, or click **Print All Tabs** to print all the available point information in all tabs. An example of a print output is shown in ***Figure 5-26***.

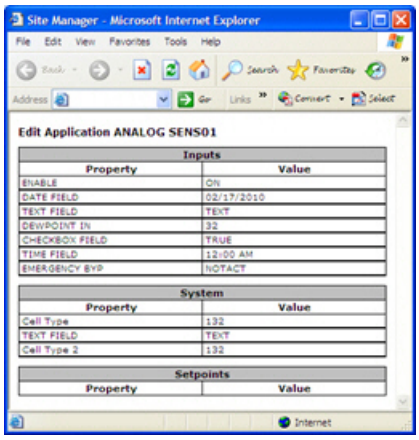


Figure 5-26 *- Print Edit Application Instance Page*

NOTE: There is no undo option on the Edit Application page; if you have entered an incorrect point value, you have to re-enter the correct value.

NOTE: Applications can be edited by more than one user at the same time, but the data that is received last will be saved (as set by the controller).

Pointer Configuration

If a point is capable of becoming a pointer, the Pointer Configuration icon appears to the right of that point value; click this icon to open the *Pointer Configuration* pop-up window:

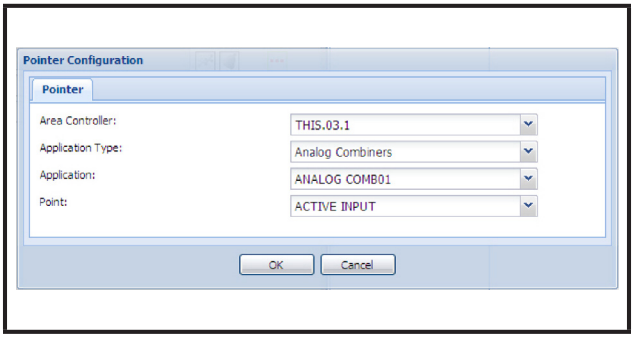


Figure 5-27 *- Pointer Configuration*

The *Pointer Configuration* window allows you to define a point within the same control system to which the current point being configured will get or send its property.

To set up a pointer, select a value from each of the drop-downs:

- **Area Controller** - the area controller to which the point will associate (should be the same control system of the current point).
- **Application Type** - the name of the application type.
- **Application** - the specific application to which the point will connect.
- **Point** - name of the input or output you want the current point to send or get its value from. Connect an input point to an output point of the same data type, and vice versa (e.g., digital outputs to digital inputs, analog inputs to analog outputs). An input point cannot be associated to another input point, likewise, an output point cannot be hooked to another output point.

Example 1: A time schedule that has a digital output that is turned on and off based on time is hooked to a digital input of another application to perform a bypass action based on the time of day.

Example 2: An analog combiner with four temperature inputs can average the inputs and have the average as the output value. The output is connected to the input of another application to control off of the average temperature.

Click **OK** to save the settings; pointer information will display in the **Value** field of the *Edit Application* page. Click **Cancel** to exit.

Each output point that has the ability to be a pointer can point to multiple other input points within a controller. To connect an output point to multiple input points, click the Pointer Configuration icon of an output. A pop-up window will open and display all the input points connected to that output. (The page will be blank if no point is connected currently.) Click to highlight an input point and click **Edit** to modify, or click **Delete** to disassociate the point and remove from the list. To connect more points, click the **Add** button; the *Pointer Configuration* pop-up window opens.

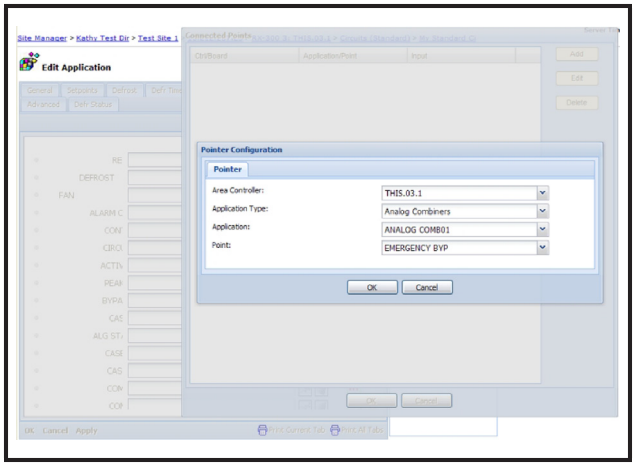


Figure 5-28 *- Pointer Configuration Window*

Click **OK** to apply the setup and enable the pointer. Click **Cancel** to exit without saving.

Log Configuration

Set up log parameters of an application instance by clicking the **Log Configuration** icon (available only for points that have logs). There are two possible types of log configuration: analog and digital. Information related to the point will appear when the point is clicked. Click **OK** to save, or **Cancel** to exit.

NOTE: Grayed out icons appear when there is no log configuration or alarm configuration set up yet. Click on the grayed out icons to set up a log configuration or advisory configuration for the first time.

Advisory Configuration

Click the **Advisory Configuration** icon to set up advisory parameters for the current point. This will configure advisories for this point only. Each point that needs advisory configuration will be set up separately. Click **OK** to apply changes, or **Cancel** to exit the window without saving.

Bypass Configuration

If available, click the **Bypass Configuration** icon to set up the bypass parameters. The *Bypass Configuration* pop-up window will open. Click **OK** to apply and exit this popup, or **Cancel** to exit without saving changes.

5.5.5. Application Type Properties

An application type property is one type of application that has been set up inside a unit (controller). Access to application types allows the user to view details about the application and make changes to the application. There can be many types of applications programmed into the controller. For example, depending on the kind of controller being used, application types can range from air handlers (***Figure 5-29***), analog and digital combiners, zones, power monitoring, global data, sensor control, time schedules, and more. All application types contain application points that appear underneath the application type once expanded.

An example of how an application type appears on the navigation menu:

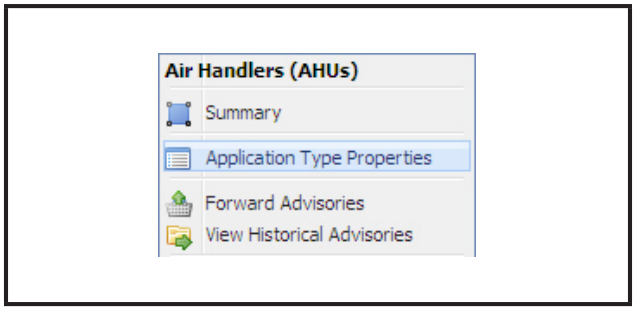


Figure 5-29 *- Application Type Properties - Navigation Tree Menu*

An example of how the application type appears inside the main window:

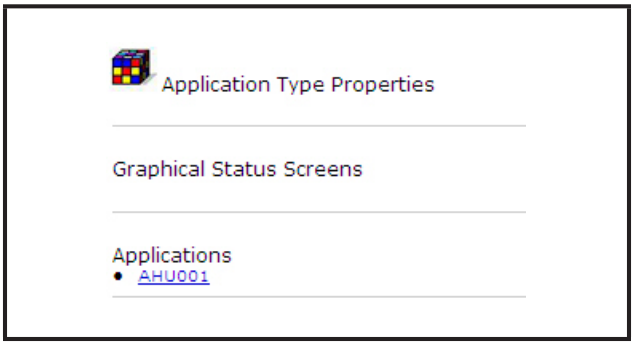


Figure 5-30 *- Application Type Properties - Main Window Menu*

To jump to an application point contained within the application, click on the link(s) underneath the application type.

5.5.6. Application Instance Properties

An application instance property shows the number of points in the application (if available) that have been programmed inside a controller. Access to application instance and points allows the user to view details about the application, see the number of points, graph points, and make changes. All application instances show points that appear underneath the application instance once expanded.

An example of how an application instance appears on the navigation menu:

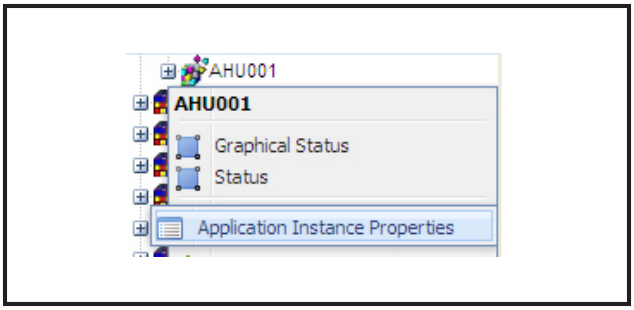


Figure 5-31 *- Application Instance Properties - Navigation Tree Menu*

An example of how the application instance with points appears inside the main window:

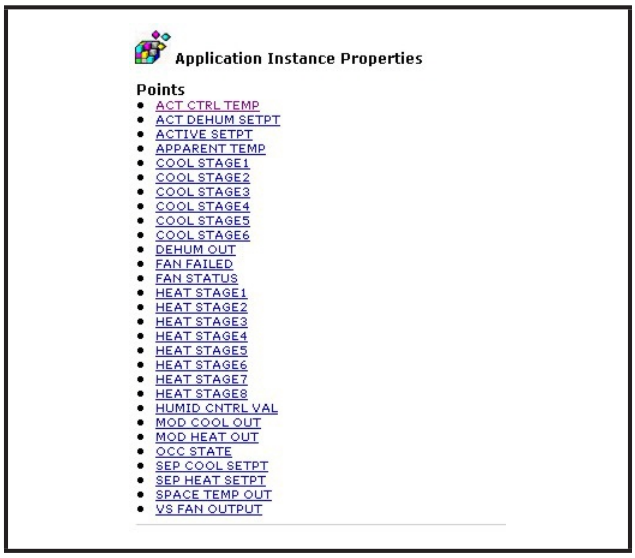


Figure 5-32 *- Application Instance Properties - Navigation Tree Menu*

To jump to an application point contained within the application instance, click on the **Points** links underneath the application instance.

For application instances where defrost is applicable (e.g., case circuits), **Manual Defrost** is available on right-click menu or from the Application Instance Properties page. Manual Defrost is a configuration that performs a defrost for a freezer or refrigerated case that is outside its normally scheduled routine.

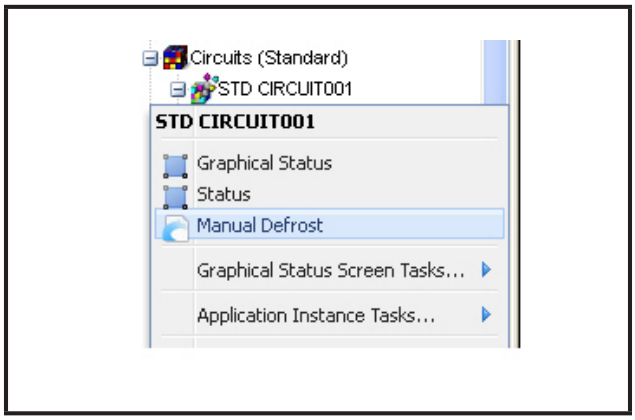


Figure 5-33 *- Manual Defrost*

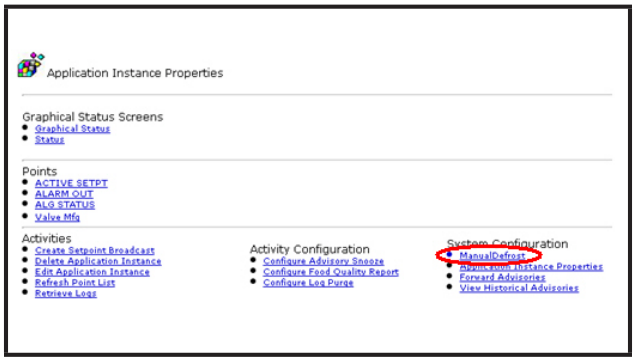


Figure 5-34 *- Manual Defrost from Application Instance Properties Page*

NOTE: Manual Defrost is available only for supported controller types (E1 and E2) and applications (Standard Circuits, Case Control Circuits, and MultiFlex CUB).

NOTE: Note also that to be able to carry out a manual defrost, appropriate privilege and protocol access levels must be assigned to the user's group. For information about configuring activity privileges and protocol access levels, see Section 4.2.1.2., Group Manager.

To start a manual defrost in Site Manager:

1. Right-click the application instance (circuit) where the freezer or refrigerated case to be defrosted is associated, and click **Manual Defrost**. The Manual Defrost box will appear with the name of the application instance displayed.

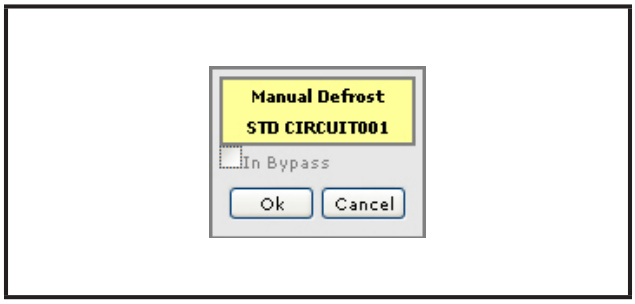


Figure 5-35 *- Manual Defrost Box*

2. Enable the **In Bypass** checkbox. (Unchecking this checkbox and clicking **OK** will remove the bypass

in the application instance and will end the on-going manual defrost.)

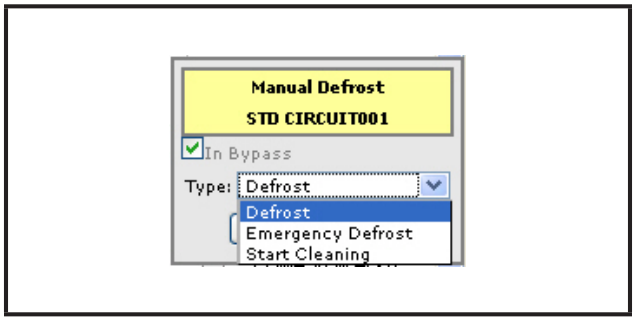


***Figure 5-36** - Manual Defrost Box*

3. Select the type of defrost:
   a. **Defrost** - Puts the unit in its normal defrost routine.
   b. **Emergency Defrost** - Begins defrost immediately. This event continues until the bypass is removed.
   c. **Start Cleaning** - Starts the clean or wash mode. Refrigeration cycle ends without any defrost action. The normal time programmed for cleaning mode also applies.
   d. **Refrigeration Override** - Appears only if the application instance is a MultiFlex CUB application.
4. Click **OK**.

A message displays if the application instance on which Manual Defrost is being run does not have data in the database. In this case, run a Refresh Point List first and configure the manual defrost again.

Once set, the manual defrost command is sent to the controller. Details of the bypass activity (whether Completed or Failed) will be recorded in the *Activity History* page.

5.6. Executing Activities

5.6.1. Backup

A Backup saves information from a controller to the server and can be done at the directory, site, control system, or unit level.

Right-click at the node on which you wish to perform the backup. An activity status page opens with a progress bar that shows the status of the Backup activity and the percentage of completion:

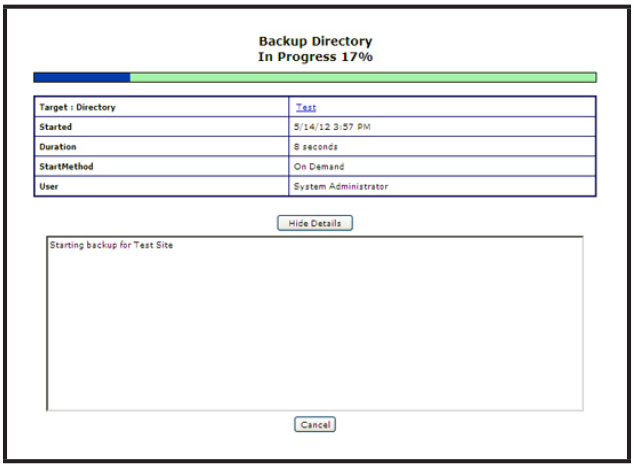


***Figure 5-37** - Backup Directory Activity Status Page*

The *Activity Status* page will display the following information:

- **Target**: What activity is in progress.
- **Date and Time**: Date and time the activity actually started.
- **Activity**: The type of activity being performed.
- **Duration**: Elapsed time of the action.
- **Start Method**: On Demand
- **Requested to Start**: The date and time the activity was requested to start by the user.
- **User**: The user who initiated the activity.
- **Status**: The status of the activity, which may be **In Progress**, **Waiting to Start**, etc.

5.6.2. Initializing Terminal Mode

The Terminal Mode feature is accessed from the mouse-over or right-click menu from the Unit level in the navigation tree. Click **Terminal Mode** from the menu and the *Terminal Mode* page opens.

Once connected, the controller interface appears on your page. Press the **Log In/Out** button to log in. Enter your username and password, hit **Enter** on your keyboard and you will be logged into the controller.

Your keystrokes are sent directly to the controller, which gives you control right from your desktop as if you were using the keypad on the controller.

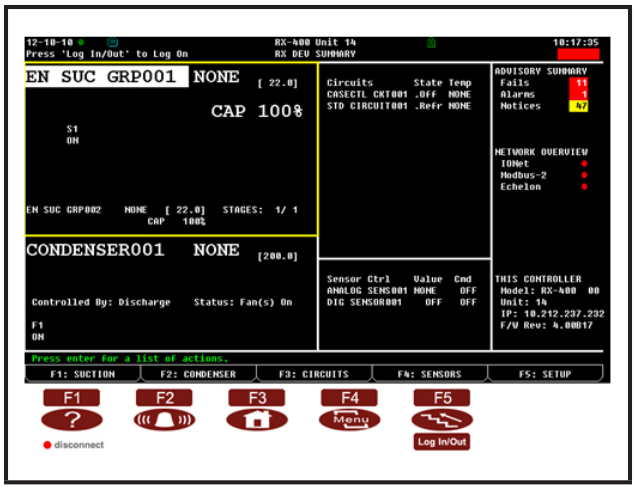


Figure 5-38 *- Terminal Mode Screen On An E2 Controller*

5.6.2.1. Terminal Mode Keys (E2 Controller Type Shown)

The keys listed in ***Table 5-3*** can be found underneath the terminal mode screens for an E2 and will vary depending on the controller type you are using. Keystrokes are sent directly to the controller, which gives you control right from your desktop as if you were using the keypad on the controller.

Key	Function for RX	Function for BX	Function for CX
F1	Suction Group	AHU	AHU
F2	Condensers	Zones	Lighting
F3	Standard and Case Circuits	Lighting	Circuits
F4	Sensor Control and Power Monitoring	Sensors	Sensors
F5	Setup	Setup	Setup
?	Help key: Opens the online help	Help key: Opens the online help	Help key: Opens the online help
(( ))	Alarm key: Opens the Advisory Log where alarms can be viewed	Alarm key: Opens the Advisory Log where alarms can be viewed	Alarm key: Opens the Advisory Log where alarms can be viewed
⌂	Home key: Opens the E2 Home screen	Home key: Opens the E2 Home screen	Home key: Opens the E2 Home screen
Menu	Menu key: Opens the Main Menu screen	Menu key: Opens the Main Menu screen	Menu key: Opens the Main Menu screen
↩	Back key: Takes the user back to the previous screen	Back key: Takes the user back to the previous screen	Back key: Takes the user back to the previous screen
Log In/Out	Log In/Out key: Opens the User Login screen. Logs off the user if currently logged into the system	Log In/Out key: Opens the User Login screen. Logs off the user if currently logged into the system	Log In/Out key: Opens the User Login screen. Logs off the user if currently logged into the system
disconnect	Disconnect key: Closes the terminal mode screen.	Disconnect key: Closes the terminal mode screen.	Disconnect key: Closes the terminal mode screen.

Table 5-3 *- Front Panel Function Keys For an E2*

Clicking **Print** on the top right corner of the terminal mode screen will print the current screen.

5.6.3. Obtain Controller Information

The Obtain Controller Information activity connects to a given Control System, refreshes the Unit list, refreshes the Application List for each Unit, and refreshes the points for any Application Instances that have "out of date" points, which means the point list will be retrieved for any applications that have never had a point list retrieved, and also for any applications that have changed since the last time the point list information was checked. Obtain Controller Information can be scheduled, see **"Scheduling Obtain Controller Information"** on page 33. for scheduling

setup.

Obtain Controller Information will need to be run (or equivalent operation) for Site Manager to display the current information in the controller and synchronize the updates from the controller configuration and the GS Screen. Note that if the configuration of the controller changes while a GS Screen is being viewed, the system will not pick up configuration changes between the time the application data inventory is being received.

Navigation Tree Menu:

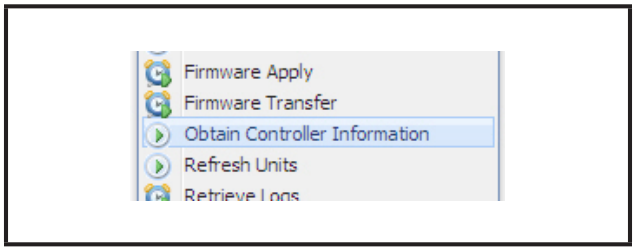


Figure 5-39 *- Obtain Controller Information Menu*

Running Obtain Controller Information Activity:

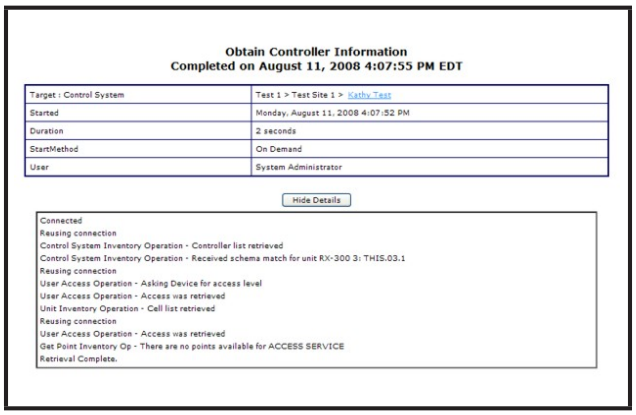

Obtain Controller Information
Completed on August 11, 2008 4:07:55 PM EDT
Target : Control System
Test 1 > Test Site 1 > Kathy Test
Started
Monday, August 11, 2008 4:07:52 PM
Duration
2 seconds
StartMethod
On Demand
User
System Administrator
Hide Details
Connected
Reusing connection
Control System Inventory Operation - Controller list retrieved
Control System Inventory Operation - Received schema match for unit RX-300 3: THIS.03.1
Reusing connection
User Access Operation - Asking Device for access level
User Access Operation - Access was retrieved
Unit Inventory Operation - Cell list retrieved
Reusing connection
User Access Operation - Access was retrieved
Get Point Inventory Op - There are no points available for ACCESS SERVICE
Retrieval Complete.

Figure 5-40 *- Obtain Controller Information Status Screen*

5.6.4. Refresh Application

Refresh applications is an activity that may be performed at the unit level in the navigation tree. When a refresh applications is performed, information (applications) is pulled from the controller and is posted to the database.

Right-click on the desired unit from the main navigation tree to bring up the pop-up menu and select **Refresh Applications**. Once this activity has been triggered, the *Activity Status* page will be displayed.

When the activity has completed successfully, the changes, if any, will be evident automatically on the navigation tree under the selected unit or click on the **Refresh** button in the navigation frame.

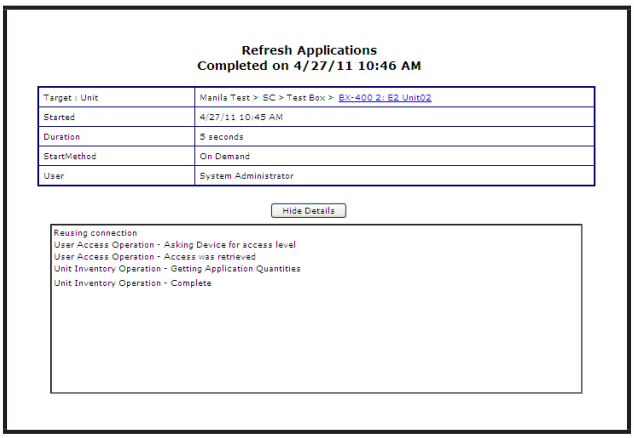


Figure 5-41 *- Refresh Application Status Screen*

5.6.5. Refresh Point List

Refresh point list is an activity that may be performed only at the Application Type and Application Instance levels on the navigation tree. When a refresh point list is performed, information is pulled from the controller and is posted to the database.

Right-click on the desired application type or instance from the main navigation tree to bring up the pop-up menu and select **Refresh Point List**. Once this activity has been triggered, the *Activity Status* page will be displayed.

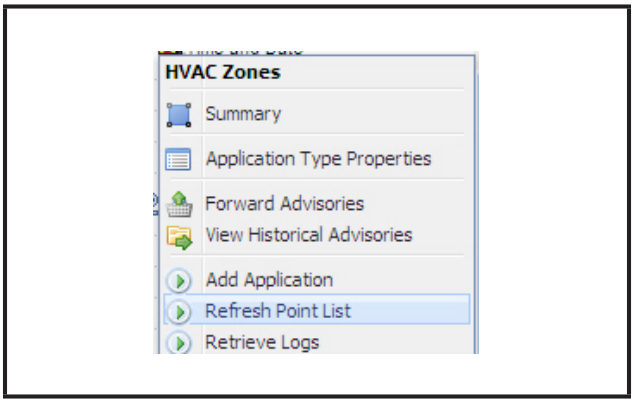


Figure 5-42 *- Refresh Point List at Application Type Level*

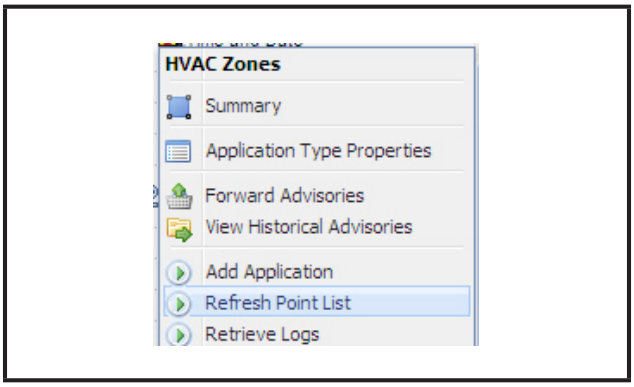


Figure 5-43 *- Refresh Point List at Application Instance Level*

When the activity has completed successfully, the changes, if any, will be evident automatically on the navigation tree under the selected application or click on the refresh button in the navigation frame.

Running the Refresh Point List Activity:

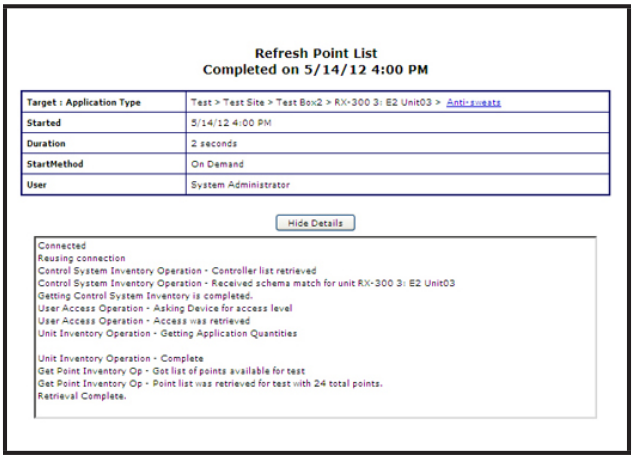

Refresh Point List
Completed on 5/14/12 4:00 PM
Target : Application Type
Test > Test Site > Test Box2 > RX-300 3: E2 Unit03 > Anti-sweats
Started
5/14/12 4:00 PM
Duration
2 seconds
StartMethod
On Demand
User
System Administrator
Hide Details
Connected
Reusing connection
Control System Inventory Operation - Controller list retrieved
Control System Inventory Operation - Received schema match for unit RX-300 3: E2 Unit03
Getting Control System Inventory is completed.
User Access Operation - Asking Device for access level
User Access Operation - Access was retrieved
Unit Inventory Operation - Getting Application Quantities
Unit Inventory Operation - Complete
Get Point Inventory Op - Got list of points available for test
Get Point Inventory Op - Point list was retrieved for test with 24 total points.
Retrieval Complete.

Figure 5-44 *- Refresh Point List Status Page*

5.6.6. Refresh Units

Refresh units is an activity that may be performed at the control system level. When a refresh units is performed, information is pulled from the controller and is posted to the database.

Right-click on the desired Control System from the main Navigation Tree to bring up the pop-up menu and select **Refresh Units**. Once this activity has been triggered, the *Activity Status* page will be displayed.

When the activity has completed successfully, the changes, if any, will be evident automatically on the navigation tree under the selected Control System or click on the refresh button in the navigation frame.

Figure 5-45 *- Refresh Units Status Page*

5.6.7. Restore

A Restore pulls the backed-up setpoints from the database and restores or “loads” the data back into the controller and is deployed at the Unit level.

Right-click on the Unit level of the navigation tree and click **Restore** to start the activity.

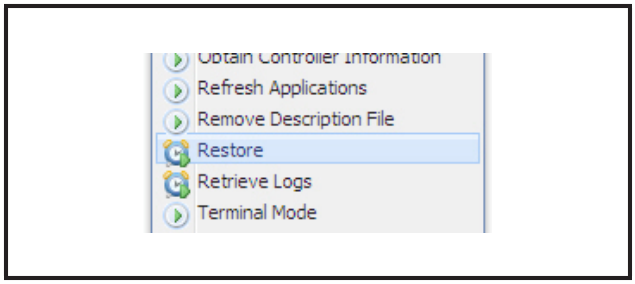


Figure 5-46 *- Restore Navigation Tree Right-Click Menu*

The Activity Startup page opens with the activity type set to **Restore** and the navigation tree shown under:

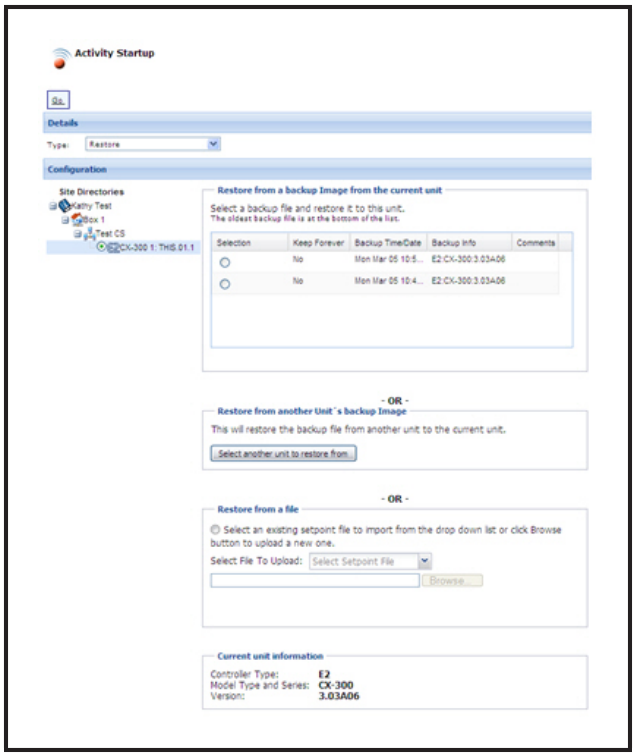

Activity Startup
Go
Details
Type: Restore
Configuration
Site Directories
Kathy Test
Box 1
Test CS
CX-300 1: THIS.01.1
Restore from a backup Image from the current unit
Select a backup file and restore it to this unit.
The oldest backup file is at the bottom of the list.
Selection
Keep Forever
Backup Time/Date
Backup Info
Comments
- OR -
Restore from another Unit's backup Image
This will restore the backup file from another unit to the current unit.
Select another unit to restore from
- OR -
Restore from a file
Select an existing setpoint file to import from the drop down list or click Browse button to upload a new one.
Select File To Upload:
Select Setpoint File
Browse...
Current unit information
Controller Type: E2
Model Type and Series: CX-300
Version: 3.03A06

Figure 5-47 *- Restore Unit Page*

To restore a unit, choose the configuration of the Restore activity:

- **Restore from a backup Image from the current unit** - Restores the current unit using the backup file chosen from the list of backed-up setpoints. Click the radio button of the backup that you wish to restore to the unit and click **Go** to Restore.
- **Restore from another Unit's backup Image** - Restores the backup file from another controller to the current unit. To restore, click the **Select another unit to restore from** button. A *Select Another Unit* pop-up window (***Figure 5-48***) opens and displays the navigation tree. Choose the unit where the current unit will restore from. Expand the navigation tree down to the Unit level, select the radio button of the Unit, and then click **Select**. After configuring Restore, click **Go**.

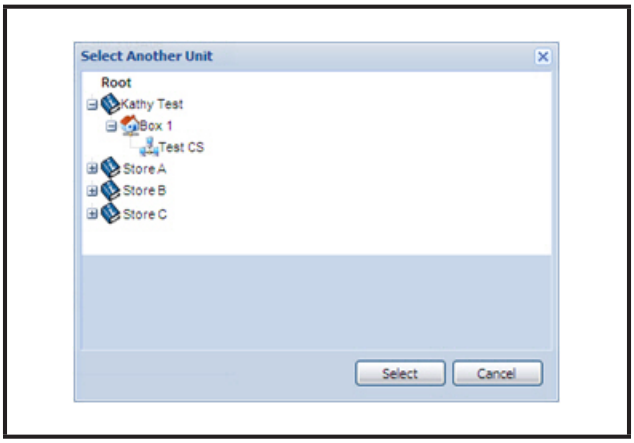


Figure 5-48 *- Select Another Unit Pop-up Window*

- **Restore from a file** - Restores the current unit using a setpoint file data (.E2b). Click the radio button in this panel and then select the setpoint file to load from the **Select File To Upload** drop-down list. If you want to restore from a local setpoint file, click the **Browse** button, locate the setpoint file on your computer, and click **Open**. Note that only setpoint files with the .E2b extension name can be uploaded; otherwise, an error message displays. If Site Manager finds a duplicate file name in the database, a message window will display and ask if you want to overwrite the old file. Click **Overwrite** to import the setpoint file and overwrite the old file, or **Cancel** to cancel file import. After configuring Restore, click **Go**.

An activity status page opens with a progress bar that shows the status of the Restore activity and the percentage of completion.

5.6.7.1. Protocol Type, Model and Firmware Version Matching

- For Restore activity to proceed, the protocol type of the controller to restore must be supported. Note that Restore supports E2 controller types only.
- If restoring backup from another controller, the protocol type of the source controller must match that of the target unit. Controller models must also match (BX to BX, RX to RX, etc.).
- If the source and target controllers have different

firmware versions, the following rules will apply:

Target Controller Firmware Version		Backup Setpoint File Firmware Version	
		Between 2.10 and 2.80	**Greater Than 2.80**
	Less Than 2.10	FAIL	FAIL
	Between 2.10 and 2.80	Upgrade or Downgrade	FAIL
	Greater Than 2.80	Upgrade	Upgrade or Downgrade

Table 5-4 *- Setpoint File Export and Firmware Version*

5.6.8. Retrieve Logs

Retrieving logs shows a historical view of inputs and outputs of the applications you choose retrieve logs on, which creates a history of records of the inputs and outputs for that application.

Two types of log retrieval are:

- **By Application Type** - Retrieves points with logs from the selected application type.
- **By List** - Retrieves only the points with logs from a previously made list.

If you are at the directory, site, control system, or unit level in the navigation tree, set the filtering with the **Filters Rules List** (**Section 4.2.4.3., *Filtering Rules***). This allows you to determine how the logs you are retrieving will be filtered. Logs are retrieved directly from the application type, application instance, and logged point levels in the navigation tree.

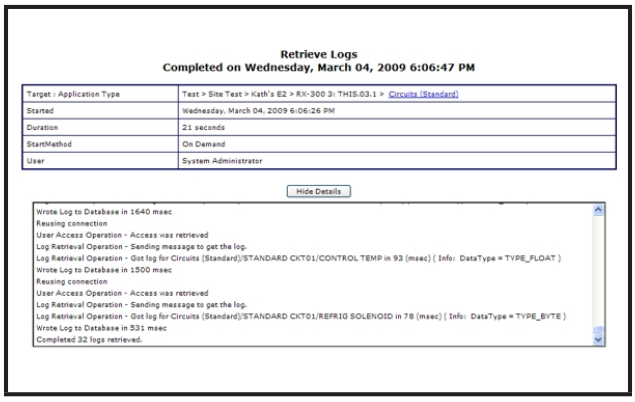

Retrieve Logs
Completed on Wednesday, March 04, 2009 6:06:47 PM
Target : Application Type
Test > Site Test > Kath's E2 > RX-300 3: THIS.03.1 > Circuits (Standard)
Started
Wednesday, March 04, 2009 6:06:26 PM
Duration
21 seconds
StartMethod
On Demand
User
System Administrator
Hide Details
Wrote Log to Database in 1640 msec
Reusing connection
User Access Operation - Access was retrieved
Log Retrieval Operation - Sending message to get the log.
Log Retrieval Operation - Got log for Circuits (Standard)/STANDARD CKT01/CONTROL TEMP in 93 (msec) (Info: DataType = TYPE_FLOAT)
Wrote Log to Database in 1500 msec
Reusing connection
User Access Operation - Access was retrieved
Log Retrieval Operation - Sending message to get the log.
Log Retrieval Operation - Got log for Circuits (Standard)/STANDARD CKT01/REFRIG SOLENOID in 78 (msec) (Info: DataType = TYPE_BYTE)
Wrote Log to Database in 531 msec
Completed 32 logs retrieved.

Figure 5-49 *-Retrieve Logs Status Page*

View information such as target, time (including start and duration intervals of when an activity was performed), method, user information, and status.

You can also retrieve logs from the *Watch Or Graph Log Points* page.

5.6.9. Upload Description File

For E2 controllers only, description files can be uploaded from the Directory, Site, Control System, and Unit levels in the navigation tree (and from the *Unit Properties* page) or accessed from the **Admin Tools** drop-down menu on the *Schedule Manager* page (depending on user permissions). A description file is a file used to add functionality into the E2 controller.

If you want to run the description file one-time only, choose **Run Now** and the *Activity Startup* page will open where you can click the **Browse** button to locate the description file you wish to upload to the E2 controller. If the description file is to be uploaded at a later date, select **Run On Schedule** and configure it from the *Schedule Manager* page. Note that this Activity can be *scheduled*, but not *recurring*.

Running the Upload Description File activity now from the *Activity Startup* page:

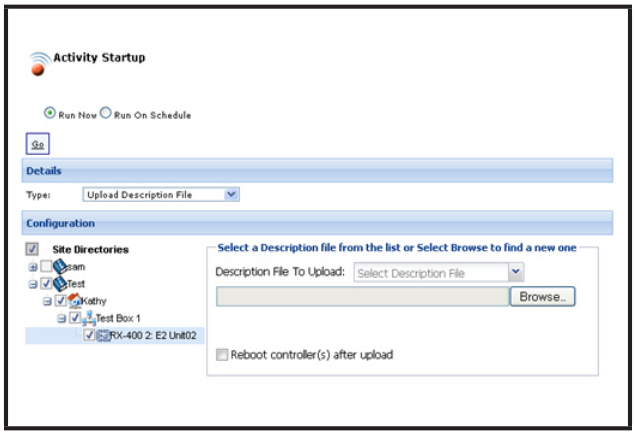


Figure 5-50 *-Uploading Description File from the Activity Startup Page*

Select the file that will be sent to the controller from the **Description File To Upload** list. If the file to be sent to controller already exists in the database, it will appear in the drop-down list.

If the file to be sent to controller does not currently exist on the server, click the **Browse** button to locate the description file. When **Browse** is clicked, you can select a single .dsc file to upload from a *File Open*

popup, and click **Open** to upload the selected file to the Site Manager server. Only *.dsc files will be uploaded. If the file name does not contain the .dsc extension, a popup error window will be displayed indicating that there was an invalid file type selected and that only file types of .dsc are allowed. Click **OK** on this popup to select the correct file from the *File Upload* window or click **Cancel** to return to the *Description File Upload* screen. Once the file is selected, the file will be uploaded to the Site Manager server and you will be redirected to the *Schedule Manager* page previously viewed and the file will be added and selected to the list of available files in the **Description File To Upload** drop-down list.

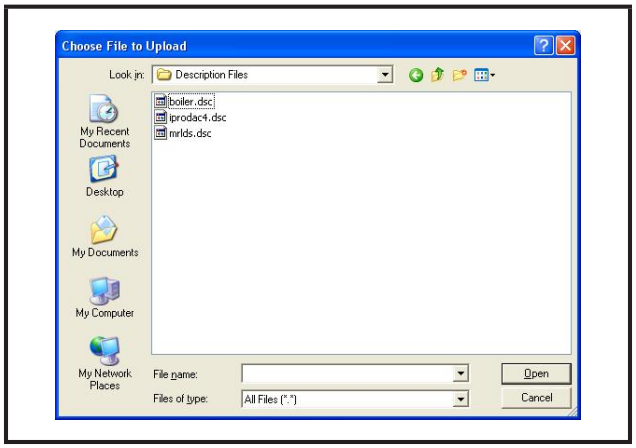


Figure 5-51 *- Browse a Description File*

Selecting **Run On Schedule** will open the *Schedule Manager* page where you can configure the activity:

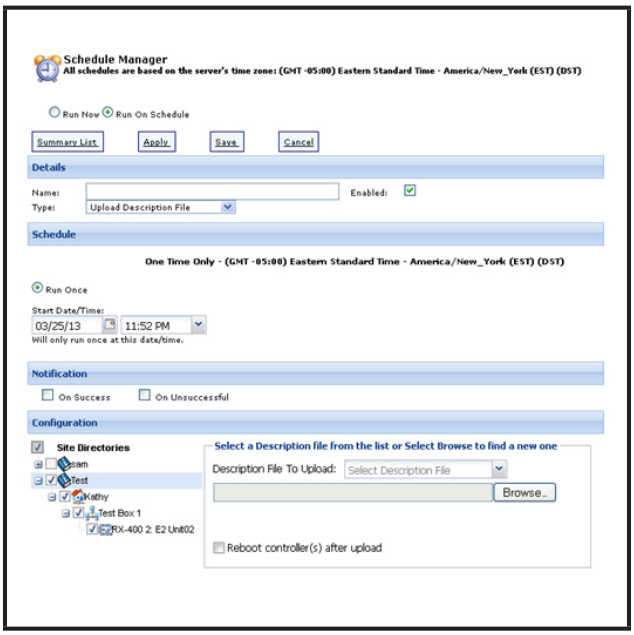


Figure 5-52 *-Scheduling Upload Description File*

Enable the **Reboot controller(s) after upload** checkbox to automatically restart the selected controllers after the upload and allow them to recognize the description file that was uploaded.

Upon saving, if no tree items are selected, a message will appear stating that there must be at least one tree item selected in order to save this schedule.

Upon saving, if no file is selected to send to the controller, an error message will appear stating that there must be a file selected in order to save this schedule.

Missing Files: If a saved schedule is edited and the file that was previously selected is missing from the Site Manager Server, then the drop-down list defaults on **Select Description File**. A popup message will appear that states *The Description file previously selected is no longer available*. Select one or more unit controllers on the tree that the description file should be sent to.

Select the entire directory or entire site if all unit controllers under that directory or site need to be chosen.

Select the specific unit controller if you click the right-click menu **Upload Description File** on the unit level.

All unit controllers under the current level should be selected if you click the right-click menu **Upload Description File** on directory or site level.

5.6.9.1. Description File Upload to the E2 Controller

When the schedule runs, either using the **Run Once** option or **Run Now** option, the description file selected at configuration time will be sent to all controllers selected in the schedule configuration.

The Activity will send the file to each selected controller.

NOTE: If the file to be sent is named exactly the same as an existing file on the controller, the file on the controller will be overwritten with the file being uploaded to it.

The status of the activity will be saved in *Activity History* and can be viewed from that page:

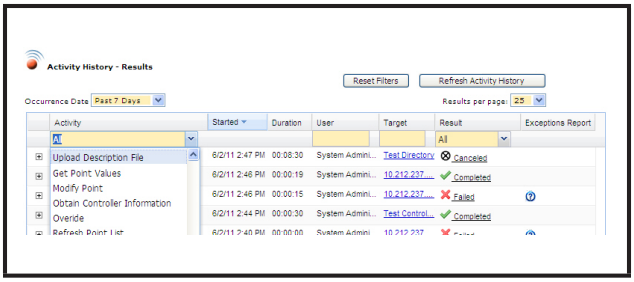


Figure 5-53 *- View Upload Description File Status from the Activity History-Results Page*

5.6.10.Create Setpoint Broadcast

Setpoint Broadcast can send data to multiple groups, sites, and/or multiple controllers at one site, and provides the ability to send setpoint and parameter information across a single enterprise.

The Setpoint Broadcast activity can be run immediately (**Run Now**) from an application instance level on the navigation tree. Running this activity from an application instance will use the data of that application instance to populate a new Application Setpoint Group.

To run Setpoint Broadcast from an application instance, right-click the application instance on the navigation tree and click **Create Setpoint Broadcast**.

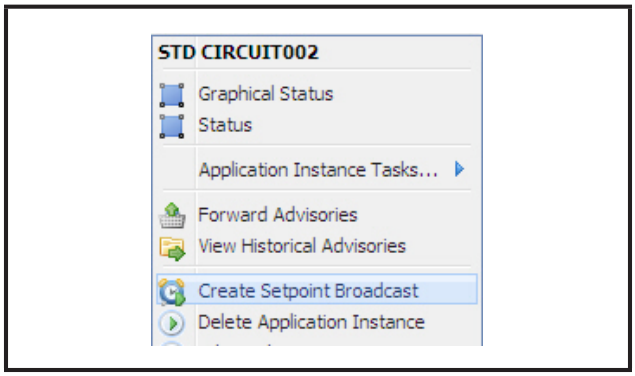


Figure 5-54 *- Create Setpoint Broadcast Menu*

The *Application Setpoint Group* box will display on top of the *Activity Startup* page.

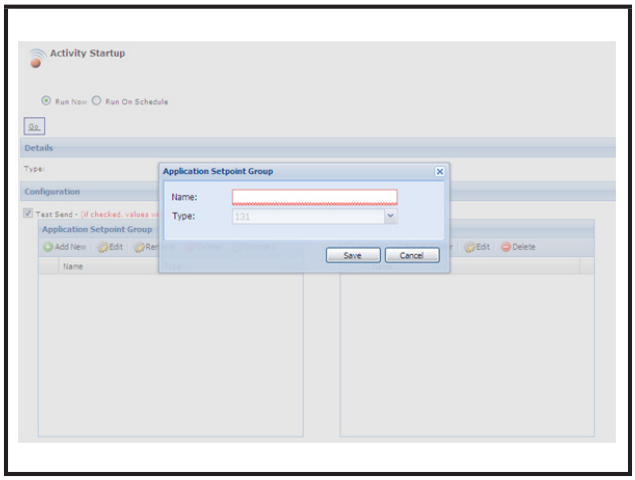


Figure 5-55 *- Run Setpoint Broadcast Immediately*

In the **Name** field, enter a unique name for the application setpoint group (required). If the name exists already in the database, a screen will open and prompt you to rename the broadcast.Click **Save**. The **Name** field cannot be left blank.

The **Type** drop-down field will be disabled. The data of the chosen application instance will be used to populate information for this field.

Click **Save** to save the new application setpoint group. The new application setpoint group will add to the list of current application setpoint groups under the *Application Setpoint Group* section.

Select where to send the setpoints by selecting a target controller group or by creating a new target controller group from this page.

Click **Go** to start the Setpoint Broadcast activity. The status of the activity will display on the main window:

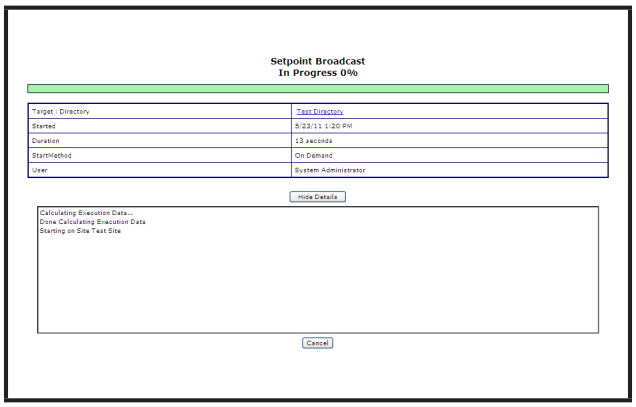


Figure 5-56 *- Setpoint Broadcast Activity Progress Bar*

The status of the activity will be saved in *Activity History* and can be viewed from that page.

Setpoint Broadcast can also be scheduled from this page by enabling the **Run On Schedule** radio button. To setup Setpoint Broadcast schedule, see **Section 4.3.2., *Setpoint Broadcast*** of this manual.

5.6.11.Export Setpoint File

Export Setpoint File activity allows users to download a setpoint configuration from an E2 controller through the Site Manager application. Setpoint files or .E2b files contain current setpoints configurations of a controller, which can be uploaded to one or more controllers.

NOTE: The Export Setpoint File activity supports E2 controller types only. If the user chooses to run this activity from an unsupported controller type, an error message displays stating that the activity is not supported for that controller.

To open the activity page, click the **Export Setpoint File** menu from the Unit level of the navigation tree (right-click menu) or from the *Unit Properties* page:

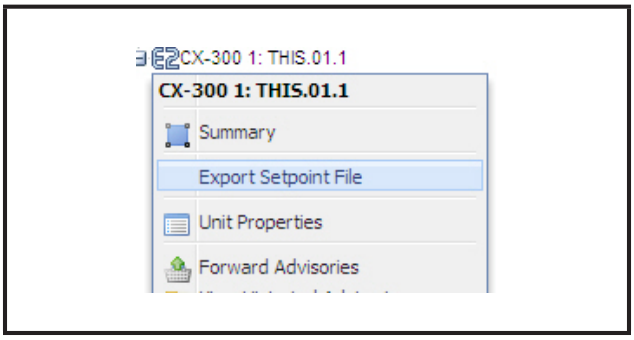


Figure 5-57 *- Export Setpoint File Navigation Tree Right-Click Menu*

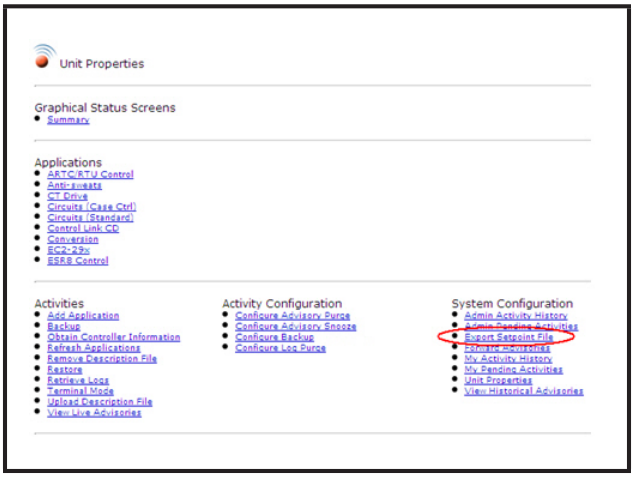


Figure 5-58 *- Export Setpoint File Menu From Unit Properties Page*

NOTE: Your Group must be assigned the appropriate privilege to run this activity. Otherwise, the activity menu will not be visible for your selection.

The *Setpoint File Export* page opens displaying all backed-up setpoints retrieved from the database for the current unit. If there is no backup available, the page displays an error message.

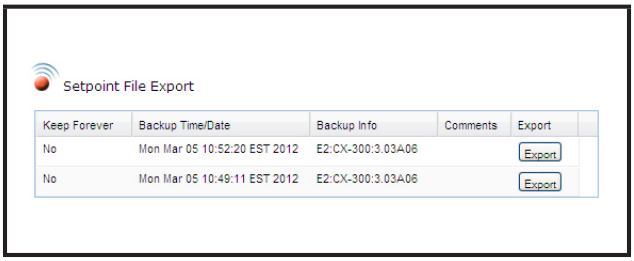


Figure 5-59 *- Setpoint File Export Page*

To export a setpoint file, select the backup to download and then click **Export**.

You will be asked to choose either to open the file or save it; click **Save**.

Next, choose a location on your PC where to save the .E2b file, browse to that location, enter a new name for the file (if desired) and then click **Save**.

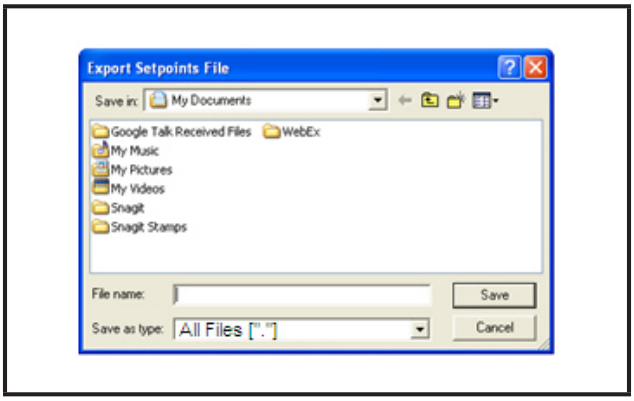


Figure 5-60 *- Export Setpoints File Dialog Box*

5.6.12.Controller Logs and Stats

The Controller Logs and Stats activity lets you retrieve and download important diagnostic information from a controller (such as CPU usage, communication statistics, update logs, and more) via Site Manager. The **Controller Logs and Stats** menu is available at a Unit level right-click menu or from the Unit Properties page.

NOTE: Note that to access this feature, appropriate privileges and protocol access levels must be assigned to the user group (see Section 4.2.1.2., Group Manager).

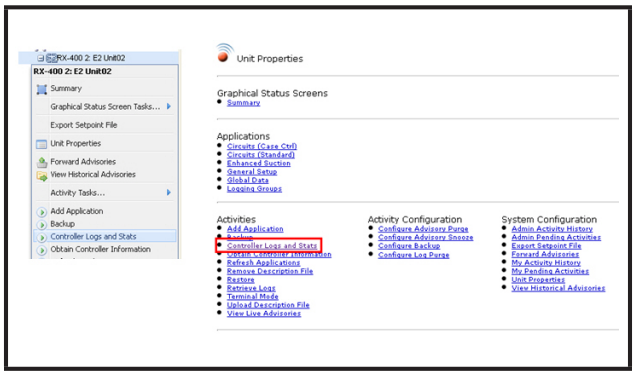


Figure 5-61 *- Controller Logs and Stats Menu*

Click the **Controller Logs and Stats** menu to open the page similar to ***Figure 5-62***:

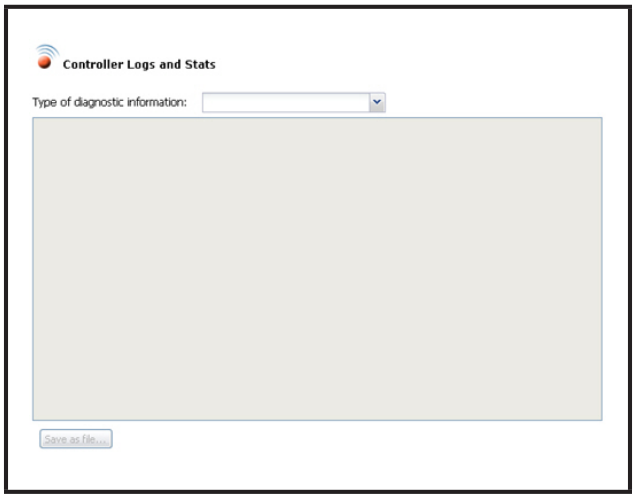


Figure 5-62 *- Controller Logs and Stats Page*

From the drop-down, select the type of information you wish to retrieve from the controller. A selection of all retrievable information will be shown in the drop-down list when expanded.

Upon selection of the information type, Site Manager will automatically retrieve and load the information details into the text frame. If there is nothing to display, a message stating that there were no logs retrieved will show in the frame.

To save the information currently displayed, click **Save as file** along the bottom of the frame. Select whether to open the file or save it to a location on your computer. Data is stored as a simple text file (.txt).

The **Clear Log** button appears next to the **Save as file** button if there is one or more logs retrieved for a certain information type and allows you to purge log data from the controller when selected. Note, however, that appropriate user privileges must be set beforehand to enable the Clear Log command otherwise the button will not display.

6 Firmware Update

6.1. Firmware Package Management

Before updating the firmware, firmware and language packages on the Site Manager server can be uploaded and/or deleted from **Firmware Package Management** at the Control System level on the navigation tree (***Figure 6-1***) and the *Control System Properties* page (***Figure 6-2***).

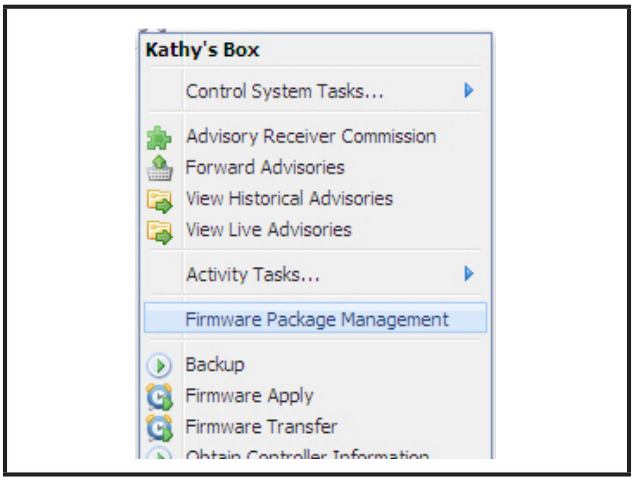


Figure 6-1 *- Firmware Package Management Navigation Tree Menu*

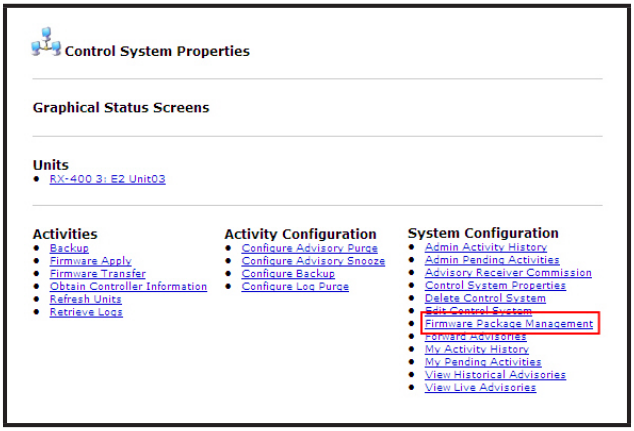


Figure 6-2 *- Accessing Firmware Package Management from the Control System Properties Page*

The *Firmware Package Manager* page (***Figure 6-3***) comprises the **Firmware Packages** and **Language Packages** tables where you can upload and/or delete firmware and language packages on the Site Manager server.

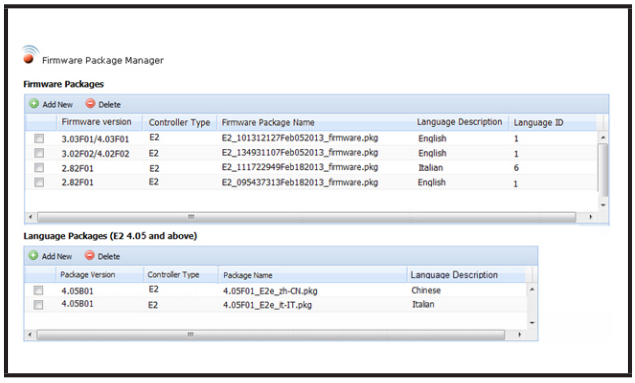


Figure 6-3 *- Firmware Package Manager Page*

> ***NOTE: Language package files are update files separate from firmware packages that provide support for other languages in E2. Language packages can be uploaded and/or deleted from the Firmware Package Manager page and are available only for E2 controllers with firmware versions 4.05 and above.***

6.1.1. Adding and Deleting Firmware Packages

6.1.1.1. Add Firmware

Under the **Firmware Packages** table (***Figure 6-4***), click **Add New** to upload a firmware package to Site Manager.

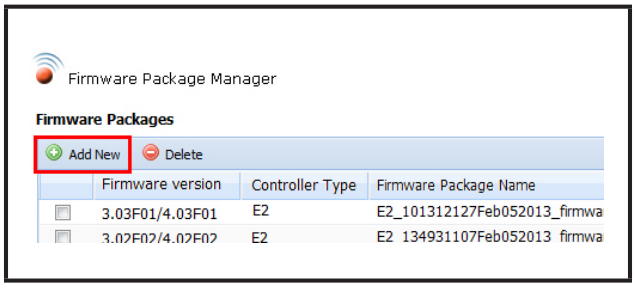


Figure 6-4 *- Add New Firmware Package*

Choose a firmware file to upload by clicking the **Browse** button on the *Add Firmware Package* window (***Figure 6-5***) and selecting the desired file from the *File Upload* window (***Figure 6-6***).

Site Manager is not shipped with any firmware packages pre-loaded in the system. Firmware files must be obtained from the emersonclimate.com site and then uploaded to the server. For example, the files for E2 can be found here: http://www.emersonclimate.com/en-us/products/controls/facility_controls/e2/pages/e2.aspx

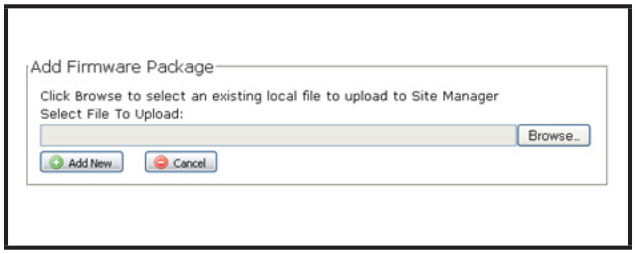

Add Firmware Package
Click Browse to select an existing local file to upload to Site Manager
Select File To Upload:
Browse..
Add New
Cancel

Figure 6-5 - *Add Firmware Package Window*

Clicking **Cancel** on the *Add Firmware Package* window will return you to the main *Firmware Package Manager* window (***Figure 6-3***).

Select a firmware package file to upload and click **Open** to preserve the location and name of the selected file.

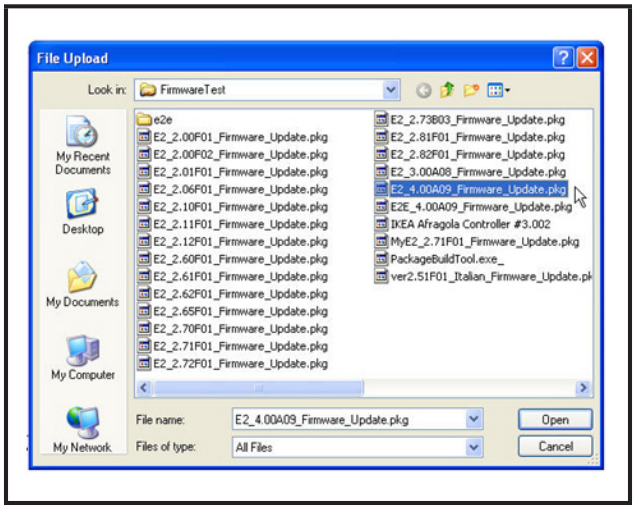


Figure 6-6 - *File Upload Window*

Clicking **Cancel** on the *File Upload* window will return you to the *Add Firmware Package* window (***Figure 6-5***).

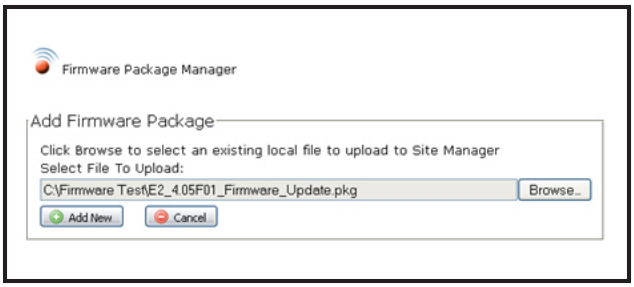


Figure 6-7 - *Add Firmware Package Window*

Clicking **Add New** on the *Add Firmware Package* window (***Figure 6-7***) will retrieve the selected package file, validate the selected file, and add the firmware file to Site Manager. The firmware package file must have .pkg as the extension of the file name.

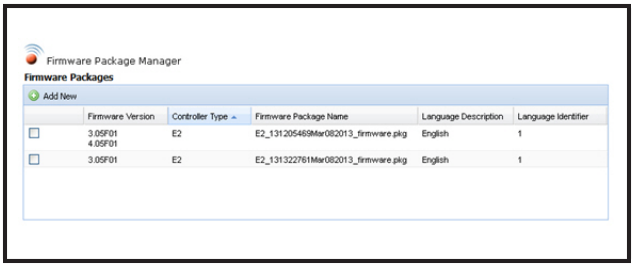


Figure 6-8 - *Firmware Package Manager*

If the package file is valid, it will be stored on the Site Manager file system and will return to the main *Firmware Package Manager* window with the uploaded file displayed in the table of firmware files stored on the Site Manager server file system. The package file will display in the table under **Firmware Version**.

If the package file is not valid, you will be directed to the page with the firmware file error displayed identifying the reason for the error. Click **Return** to go back to the *Firmware Package Manager* window.

If the package file name does not contain the .pkg extension, a popup window will be displayed with the error message (***Figure 6-9***). Click **OK** on this popup to select the correct file from the *Add Firmware Package* window (***Figure 6-7***), or click **Cancel** and return to the main *Firmware Package Manager* window

(***Figure 6-8***).

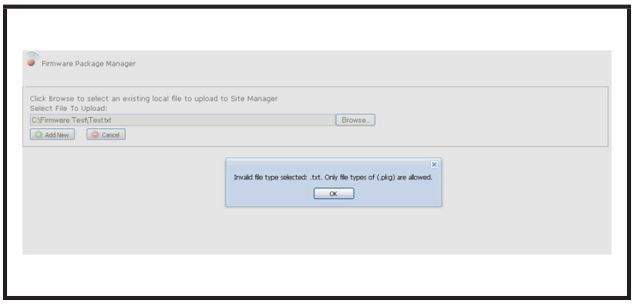


Figure 6-9 *- Error Message*

6.1.1.2. Delete Firmware

The delete firmware package function allows firmware package files to be removed from the Site Manager file system and database.

To remove firmware packages from the server, click the checkbox(es) of the package(s) you wish to delete and click the **Delete** button on the **Firmware Packages** table (***Figure 6-10***):

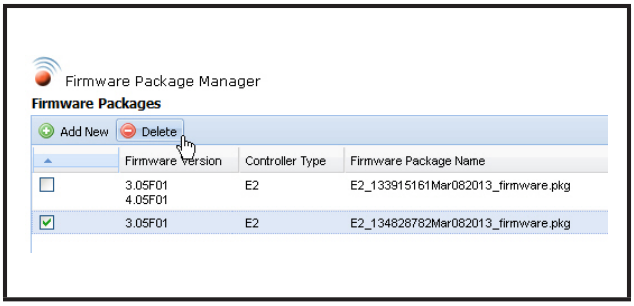


Figure 6-10 *- Delete Firmware Package*

The package will be deleted. Firmware versions cannot be deleted.

When you click **Delete**, a dialog box will be displayed asking to confirm delete (***Figure 6-11***):

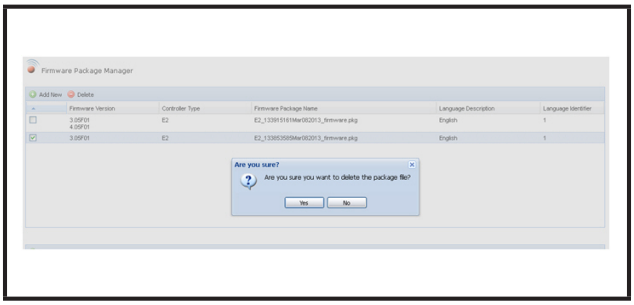


Figure 6-11 *- Confirm Delete Firmware*

To proceed with the deletion of the selected firmware package files, click **Yes** from the dialog box. Otherwise, click **No**.

If there were errors in the deletion process, an error message will be displayed.

The error may have occurred because the file is unable to be deleted or is not in the system. Click **Return** on the *Delete Firmware Files* window to return to the *Firmware Package Manager* window (***Figure 6-10***).

If there were no errors in the deletion process, you will be returned to the main *Firmware Package Manager* page showing the current list of firmware package files minus the package files that were deleted:

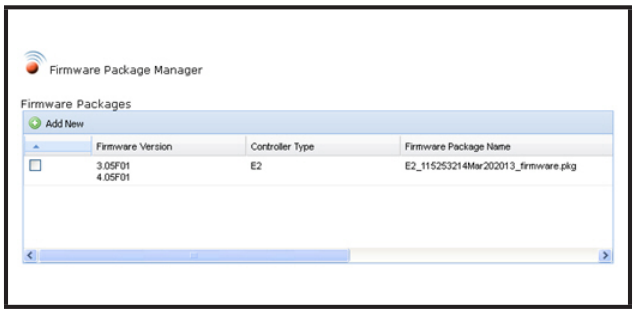


Figure 6-12 *- Firmware Package File Deleted*

6.1.2. Adding and Deleting Language Packages

NOTE: Language package files are update files separate from firmware packages that provide support for other languages in E2. Language packages can be uploaded and/or deleted from the Firmware Package Manager page and are available only for E2 controllers with firmware versions 4.05 and above.

6.1.2.1. Add Language File

Under the **Language Packages** table (***Figure 6-13***), click **Add New** to upload a language package to Site Manager.

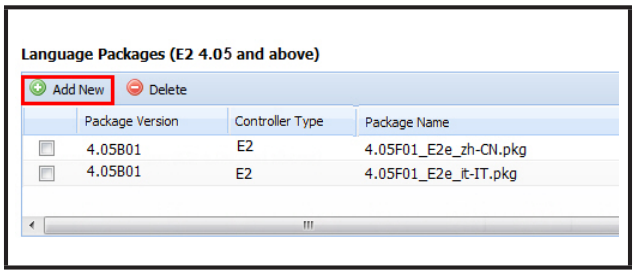


Figure 6-13 - *Add Language Package*

Choose a file to upload by clicking the **Browse** button on the *Add Language Package* window (***Figure 6-14***) and selecting the desired file from the **File Upload** window (***Figure 6-15***).

Site Manager is not shipped with any firmware and language packages pre-loaded in the system. Firmware and language files must be obtained from the emersonclimate.com site and then uploaded to the server. For example, the files for E2 can be found here:
http://www.emersonclimate.com/en-us/products/controls/facility_controls/e2/pages/e2.aspx

Add Language Package
Click Browse to select an existing local file to upload to Site Manager
Select File To Upload:
Browse..
Add New
Cancel

Figure 6-14 - *Add Language Package Window*

Clicking **Cancel** on the *Add Language Package* window will return you to the main *Firmware Package Manager* window.

Select a language package file to upload and click **Open** to preserve the location and name of the selected file.

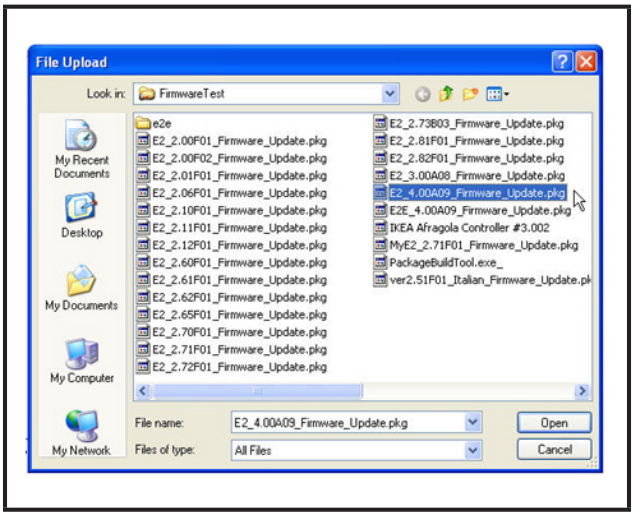


Figure 6-15 - *File Upload Window*

Clicking **Cancel** on the *File Upload* window will return you to the *Add Language Package* window.

Clicking **Add New** on the *Add Language Package* window will retrieve the selected package file, validate the selected file, and add the language file to Site Manager. The language package file must have .pkg as the extension of the file name.

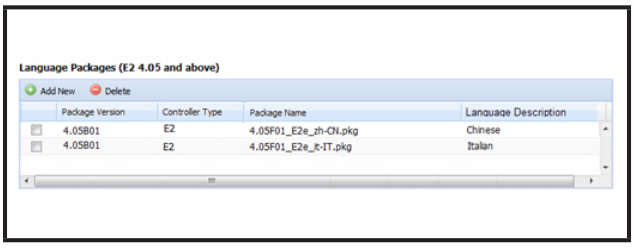


Figure 6-16 - *Language Package File List*

If the package file is valid, it will be stored on the Site Manager file system and will return to the main *Firmware Package Manager* window with the uploaded file displayed under the **Language Packages** table stored on the Site Manager server file system. The package file will display in the table under **Package Version**.

If the package file is not valid, you will be directed to the page with the language file error displayed identifying the reason for the error. Click **Return** to go back to the *Firmware Package Manager* window.

If the package file name does not contain the .pkg extension, a popup window will be displayed with the error message (***Figure 6-17***). Click **OK** on this popup to select the correct file from the *Add Language Package* window, or click **Cancel** and return to the main *Firmware Package Manager* window.

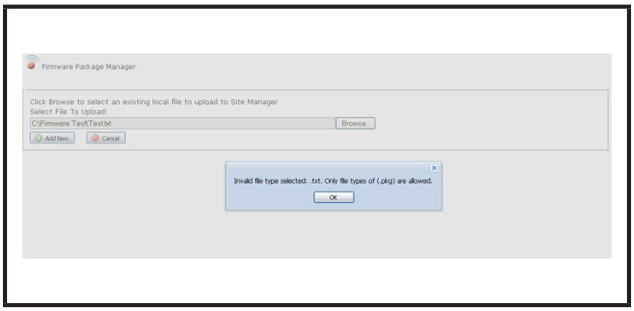


Figure 6-17 *- Error Message*

6.1.2.2. Delete Language File

The delete language package function allows language package files to be removed from the Site Manager file system and database.

To remove language packages from the server, click the checkbox(es) of the package(s) you wish to delete and click the **Delete** button on the **Language Packages** table (***Figure 6-18***):

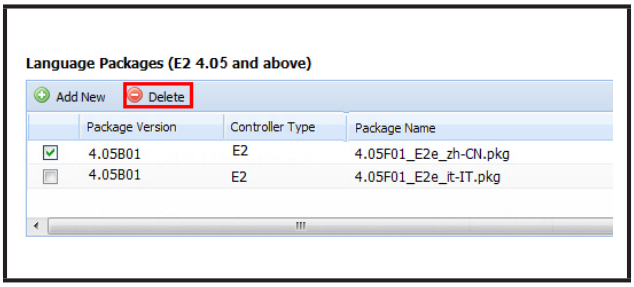


Figure 6-18 *- Delete Language Package*

The package will be deleted.

When you click **Delete**, a popup dialog box will be displayed asking to confirm delete (***Figure 6-19***):

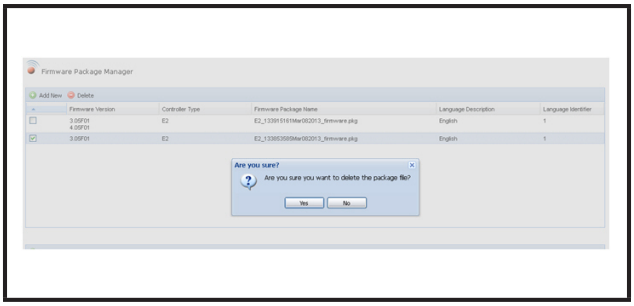


Figure 6-19 *- Confirm Delete*

To proceed with the deletion of the selected package files, click **Yes** from the dialog box (***Figure 6-19***). Otherwise, click **No**.

If there were errors in the deletion process, an error message will be displayed.

The error may have occurred because the file is unable to be deleted or is not in the system. Click **Return** on the *Delete Firmware Files* window to return to the *Firmware Package Manager* window.

If there were no errors in the deletion process, you will be returned to the main *Firmware Package Manager* page showing the current list of language package files minus the package files that were deleted.

6.2. Firmware Transfer

The Firmware Transfer process delivers the firmware files to the units in a control system and/or updates language package files of units. A Firmware Transfer can be started from a Directory, Site, or a Control System in the navigation tree, from a Directory, Site, or *Control System Properties* page, or Firmware Transfer can be scheduled.

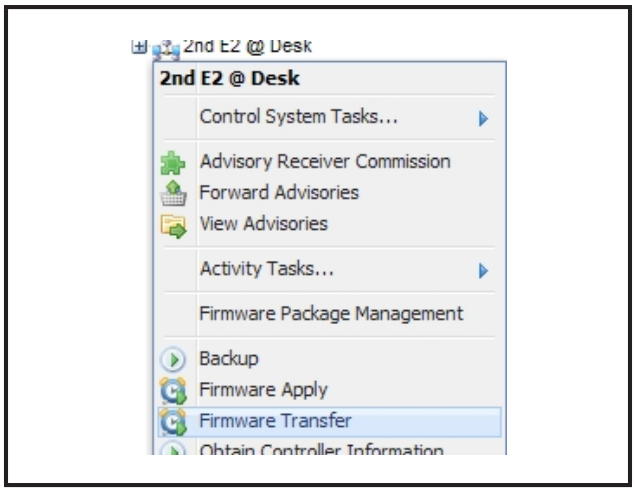


Figure 6-20 *- Firmware Transfer Right-click Menu from the Navigation Tree*

Firmware Transfers may be scheduled, but will be on a non-recurring, one-time schedule only, so they will need to be configured in Schedule Manager each time when run on a schedule.

A Firmware Transfer configuration can be selected from the main navigation tree (***Figure 6-20***), from a properties page (***Figure 6-21***), or from the Schedule Manager (***Figure 6-22***):

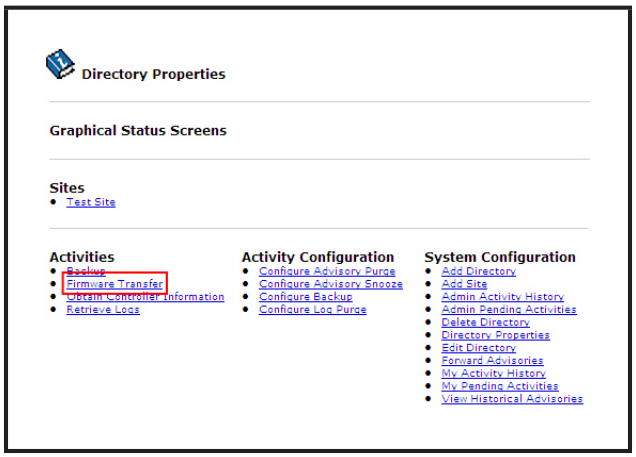


Figure 6-21 *- Firmware Transfer Menu from a Properties Page*

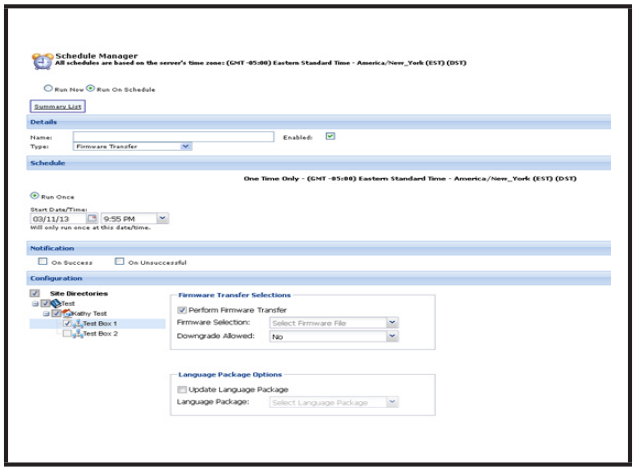


Figure 6-22 *- Firmware Transfer Menu from the Schedule Manager Page*

At the start of the Firmware Transfer, a Control System Inventory will be performed on the Control System(s) selected for Firmware Transfer.

The Firmware Transfer configuration is accessed from the Firmware Transfer Scheduler (***Figure 6-22***). The two scheduling options for Firmware Transfer are **Run Now** (***Figure 6-23***) and **Run On Schedule** (***Figure 6-24***).

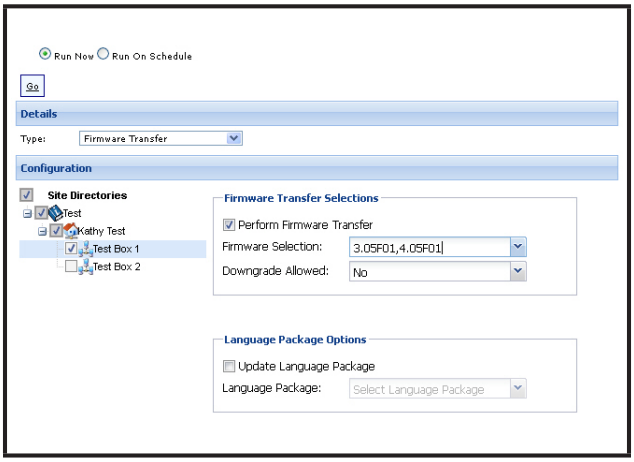


Figure 6-23 *- Set Firmware Transfer to Run Now*

Run a Firmware Transfer on a Schedule:

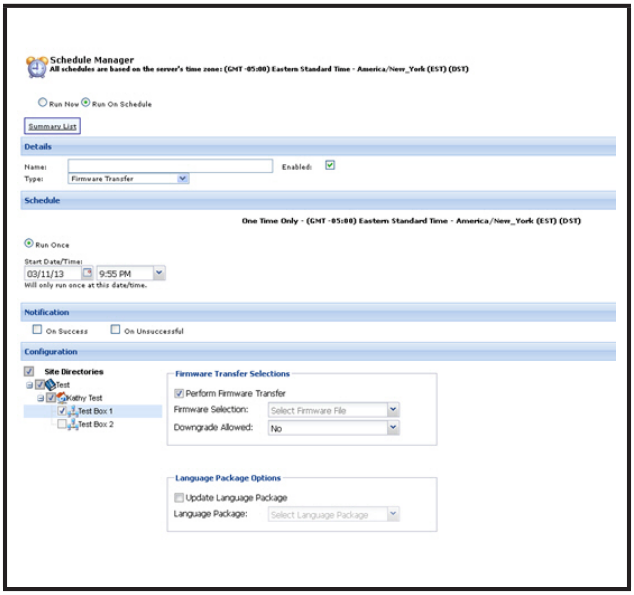


Figure 6-24 *- Set Firmware Transfer to Run On Schedule*

The Schedule Manager is responsible for running the Firmware Transfer activity. The Firmware Transfer activity configuration has two options:

- **Run Now** (execute the activity immediately)
- **Run on Schedule** (schedule the activity to deploy at a specified date and time)

The deployment of the Firmware Activity is initiated by clicking the **Go** button:

Figure 6-25 *- Click Go Button to Initiate Firmware Transfer*

Users have the option to select which transfer activities will be executed, whether to run firmware transfer only, update language package only, or both.

Run Firmware Transfer Now

To run the Firmware Transfer Schedule **now** (***Figure 6-23***):

1. Select the **Run Now** option on the Schedule Manager page.
2. Make the appropriate configuration option selections:

Directory, Site, and Control System

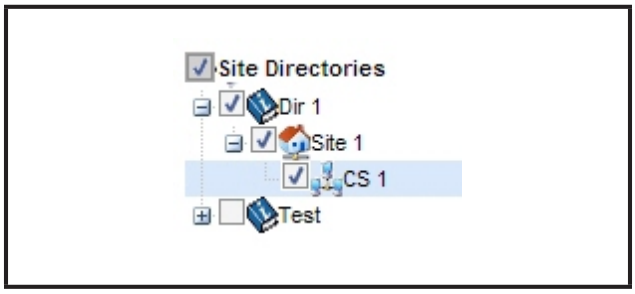


Figure 6-26 *- Configuring Transfer Application*

3. Under **Firmware Transfer Selections** (***Figure 6-27***), enable the **Perform Firmware Transfer** checkbox then select the appropriate firmware package under the **Firmware Selection** drop-down list:

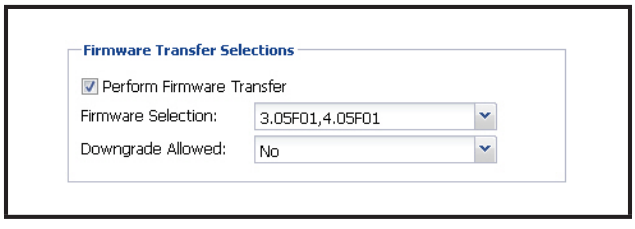


Figure 6-27 *- Select the Firmware Package to Transfer*

4. Select whether a downgrade will be allowed (***Figure 6-27***). If the firmware selection is a downgrade for the selected control system, and it is acceptable for the downgrade to occur, select **Yes**. If **No** is selected and the firmware transfer is a downgrade for the control system, the firmware transfer will not occur. As a precaution, a warning will appear in the *Activity History* page when a unit is receiving a package that will be a downgrade to its firmware.

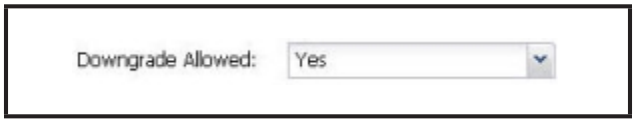


Figure 6-28 *- Select Yes to Allow Downgrade*

5. Select a firmware file to transfer from a list of firmware files (***Figure 6-27***) that are stored on the Site Manager server.
6. If you wish to run a language file update simultaneous with firmware transfer, enable the **Update Language Package** checkbox under **Language Package Options** (***Figure 4-35***), and then select the language file to update from the **Language Package** drop-down list (all language package file names on the server will show in this list):

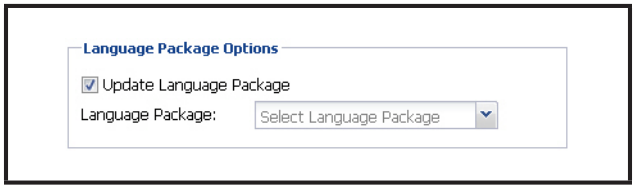


Figure 6-29 *- Select the Language Package*

NOTE: If you wish to perform language package update only from this page, disable the Perform Firmware Transfer checkbox (Figure 6-27).

7. After setting the configuration of the activity, click **Go** to start the activity. (Clicking **Go** without selecting a firmware package or language package will prompt an error message.)

8. Once the Firmware Transfer has been initiated, the *Activity Status* page will open (***Figure 6-30***) and show the progress of the activity:

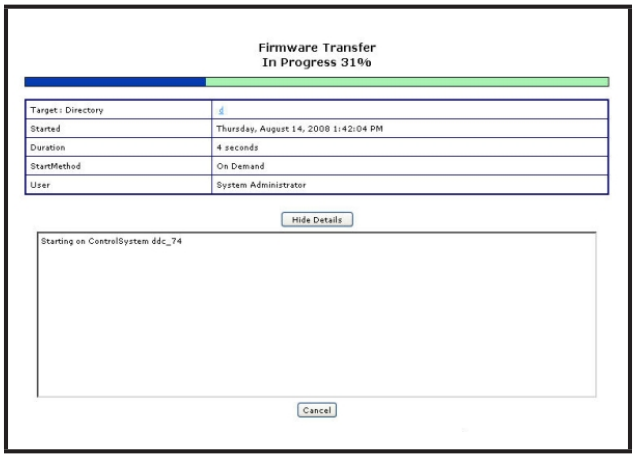


Figure 6-30 *- Firmware Transfer Status Page*

9. The detailed progress of the Firmware Transfer can be monitored from the *Activity History* page (*Admin Tools > Activity History > View History*):

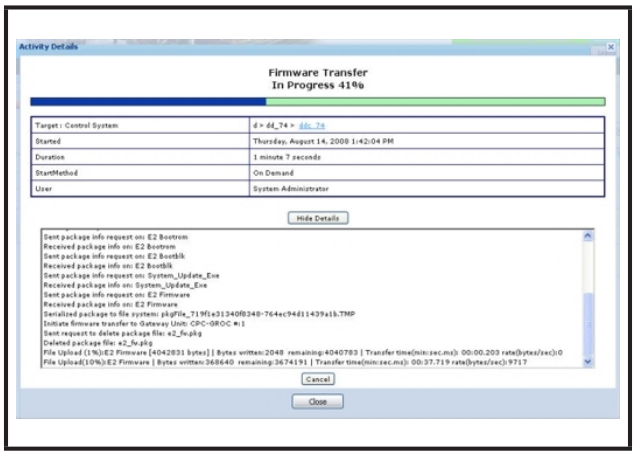


Figure 6-31 *- Monitor Progress Details of Firmware Transfer from Activity History Page*

Note that to start using the updated language package version, the controller(s) must be rebooted and the language package version must be selected.

Run Firmware Transfer On Schedule

To run Firmware Transfer **on schedule:**

1. If you choose to Run the Firmware Transfer on a schedule (***Figure 6-32***):

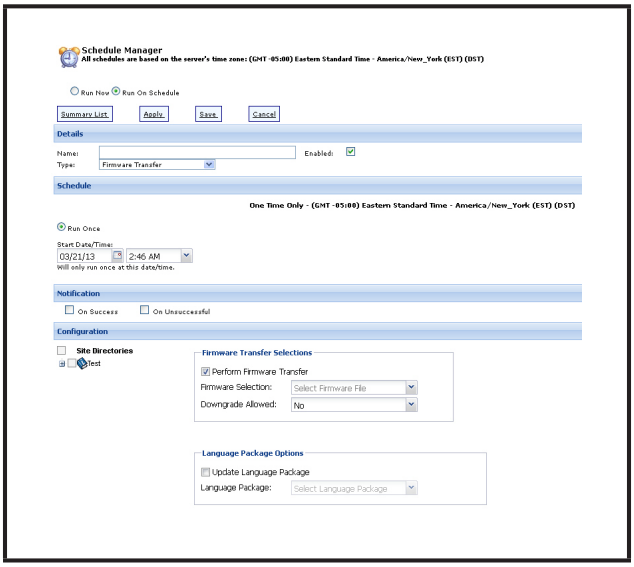


Figure 6-32 *- Schedule Firmware Transfer*

2. Configure the start date/time, hours, minutes, and more on the *Schedule Manager* page. Once the Firmware Transfer has been initiated, the *Activity Status* page will open and show the progress of the activity and all unit revisions are confirmed.

6.2.1. Downgrading Firmware

Downgrades will be allowed if the **Downgrade Allowed** drop-down (***Figure 6-28***) is set to **Yes** on the configuration page, but a warning will appear in the *Activity History* page when a unit is receiving a package that will be a downgrade to its firmware.

If there are any units on a particular Control System that will be downgraded, the entire Control System will be considered a downgrade. Additionally, if the **Downgrade Allowed** drop-down was set to **No**, the firmware will not be transferred to any controller on this Control System.

The firmware will be transferred to the gateway unit, and then the gateway unit will be instructed to transfer to any other units that are members of the control system one at a time.

6.2.2. Updating Language Package

Language package files of supported controller units can be updated by enabling the **Update Language Package** checkbox (***Figure 6-29***) from the configuration page, selecting the language file from

the **Language Package** drop-down list, and selecting the target control systems where the update will be applied. The language package update activity can be run exclusively or as a sub-activity of Firmware Transfer via the Firmware Transfer Scheduler (***Figure 6-32***).

Language package files are transferred from control system to control system. During the update process, Site Manager will check the firmware version of each unit in the target control system if supported and compatible with the language package version. If the unit is supported and compatible, update will proceed for that unit. Otherwise, the update will be skipped on the unsupported unit and the next unit will be checked for version compatibility. The update process will continue to run until all units in all target control systems have been checked and/or updated.

If the language package file being updated is corrupted or damaged, the update will be stopped.

Language package files are update files separate from firmware packages that provide support for other languages in E2 and are available only for E2 controllers that have firmware versions 4.05 and above.

Note that controllers must be rebooted and the language must be selected for the update to take effect.

6.2.3. Firmware Transfer Interruption

If the transfer activity is interrupted for any reason in the middle of attempting a transfer, the activity will attempt to retry at a maximum of 3 attempts. If the retry attempts fail, the activity status will be updated to **Failed**.

If this activity is started again at a later time, the activity will check to see if the package is already on the controller. If the package file is found to be on the controller, the package will not be resent, but instead the transfer will continue from the point where it was interrupted/stopped earlier.

The last transfer to the Control System is always saved for future reference.

6.3. Firmware Apply

Firmware Apply is deployed only from the Control System level on the navigation tree (***Figure 6-33***), or the Control System Properties page (***Figure 6-34***).

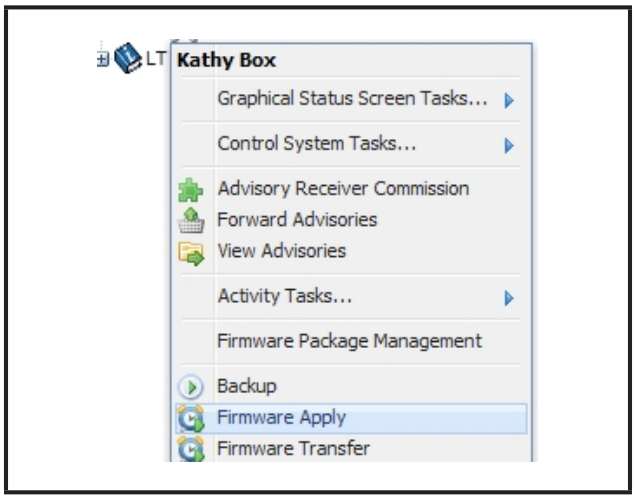


Figure 6-33 *- Firmware Apply Right-click Menu from the Navigation Tree*

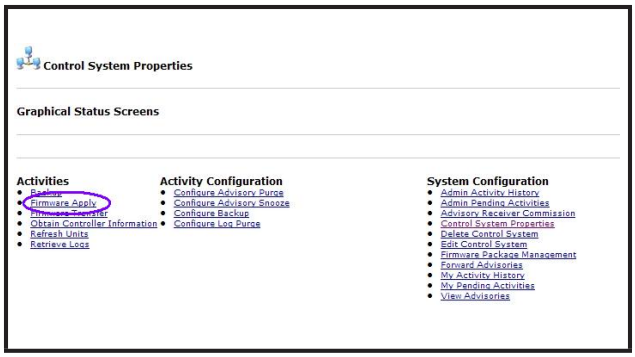


Figure 6-34 *- Firmware Apply Menu from the Control System Properties Page*

Firmware Apply can be configured for execution at the Control System level only from the Schedule Manager (***Figure 6-35***):

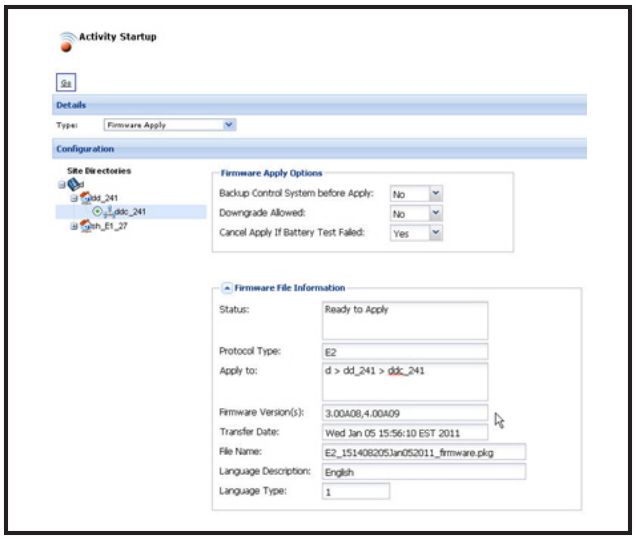


Figure 6-35 *- Configuring Firmware Apply from Activity Startup Page*

The Firmware Apply activity is designed to only allow **Run Now** without the option for scheduling future time or date (no Run on Schedule option):

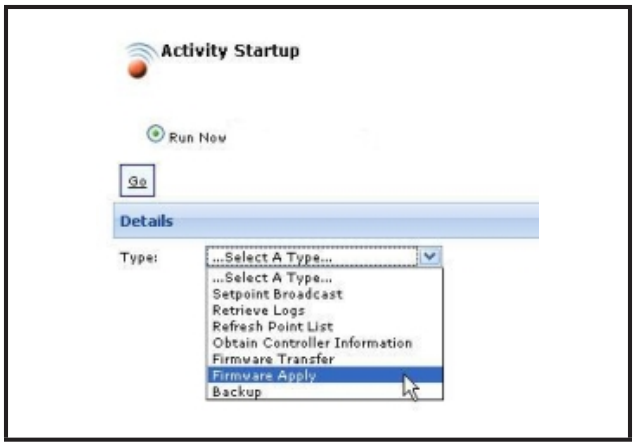


Figure 6-36 *- Setting Firmware Apply*

At the start of running the Firmware Apply activity, a Control System Inventory will be performed on the Control System targeted for Firmware Transfer.

6.3.1. Firmware Apply Deployment

Firmware Apply deployment may be accessed from the main navigation tree at the control system level (***Figure 6-35***) or from the Schedule Manager by selecting the Firmware Apply activity from the drop-down list (***Figure 6-36***). The targeted control system on which the firmware apply will take place must be selected using the tree under **Configuration** (***Figure 6-35***).

The firmware package status, target control system, name, version, last transfer date, language description, language type, and controller type will be displayed for the selected control system if the firmware was transferred from Site Manager only. Any firmware not transferred using Site Manager will not be recognized.

NOTE: Firmware Packages contain more than one firmware version, and each will be listed in the Firmware Version(s) text box.

The **Backup Control System before Apply** drop-down will perform a backup of units in the Control System before the firmware is applied if the option is set to **Yes**. The default value will be **No** (***Figure 6-35***).

If **Downgrade Allowed** (***Figure 6-35***) is set to **Yes**, a warning message will be displayed alerting that the unit(s) existing setpoints will be cleaned out as a result of downgrading the firmware (***Figure 6-37***). Click **OK** to proceed with the downgrade or **Cancel** to stop.

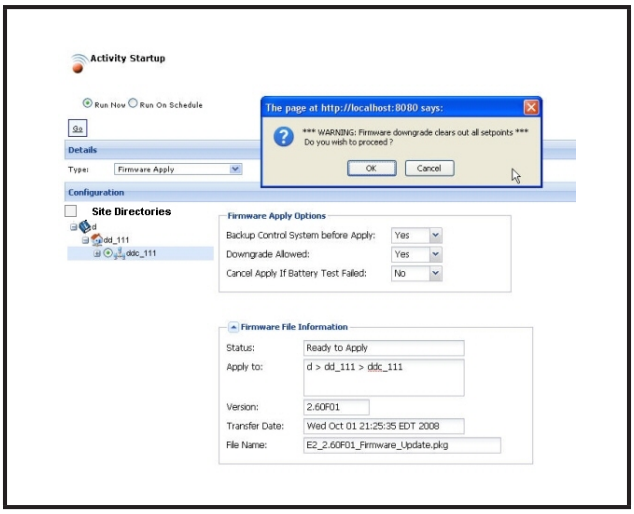


Figure 6-37 *- Firmware Downgrade Warning Message*

When you are ready to execute the Firmware Apply activity, click **Go**. The Firmware Apply activity will continue to run even if you navigate away from the *Schedule Manager* page, as with every other activity.

If the option for **Cancel Apply If Battery Test Failed** (***Figure 6-35***) is set to **Yes**, a battery test will be performed on all units prior to applying the firmware. If any unit fails the battery test, the Firmware Apply will automatically be canceled, and the Activity Details report will be updated to show that the apply process was canceled as a result of the battery test failure of the applicable units.

When you are ready to initiate the Firmware Apply activity, click **Go**:

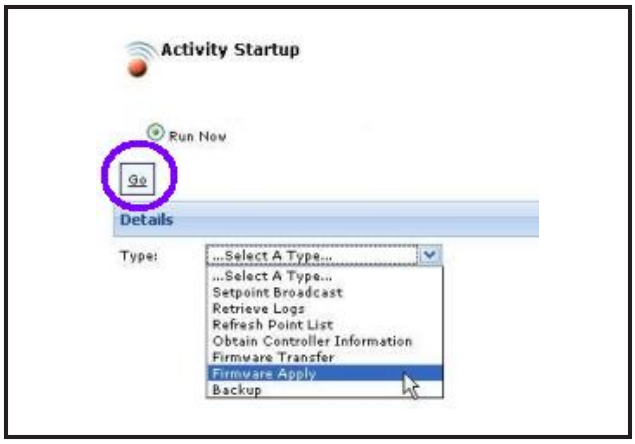


Figure 6-38 *- Click Go Button to Initiate Firmware Apply*

The Firmware Apply activity will connect to the targeted Control System and validate the firmware file on each controller of the control system. If any firmware file fails validation, the firmware apply for the target control system will fail and report the failure in the activity history.

6.3.2. Firmware Matching and Activity History Role

- Firmware Apply will check the firmware versions of each controller in the target control system to verify that all controllers have the same version of the firmware package version. If a firmware match is detected, the apply process will continue until completed.
- If there is not a complete match of firmware versions on all the units, the activity history will report that the firmware transfer process should be repeated and recommend in the activity history to retry the firmware apply.
- If the firmware version match is not located, the status of the activity will attempt to determine what version of firmware it does have and report that in the activity status. The activity history will then update to **Failed**.
- If there is a complete match of firmware versions on all the units, the version of the firmware packages on the units will be compared to the firmware package version of the last firmware transfer that is stored in the database.

6.3.3. Downgrades and Setpoint Clean-Out

If the firmware package version precedes the controller version, this is a considered a downgrade. Downgrading of firmware will result with a downgrade warning reported in the activity history. There will be additional warnings in the activity history stating that the units will be cleaned out of all setpoints that are currently in the controller, which will be set back to its original factory settings.

6.3.4. Non-Gateway Controllers First, Gateway Last

- The Firmware Apply activity will start the process on all of the non-gateway controllers and process each one at a time. Only after all non-gateway controllers have successfully completed will the Gateway controller will have the firmware applied. The reason to apply the Gateway last is the connection to the gateway unit will be lost once the firmware apply has been initiated.
- Once the activity has started to apply the firmware packages, the activity will attempt to reconnect to the device every 30 seconds for 15 minutes, or until it has been reconnected. If the firmware activity is unable to reconnect to the unit the Firmware Apply status will result in a **failed** status.

6.3.5. Firmware Matching

- Upon acknowledgment from the controller, the Firmware Apply activity will check and attempt to find a match between the existing firmware version of the controller and the version of the firmware package being applied. If the controller's current firmware version matches the firmware package version being applied, the record for the controller in the database will be updated to reflect the new version. The activity history will also be updated with the new firmware version.
- The final status of the firmware apply for the target control system will be considered **successful**, and all other conditions such as database update failure or program faults will result in a **failed** status.

6.3.6. Successful or Failed Results

- The status of the Firmware Apply process for each controller will be checked for a successful result.
- If the Firmware Apply was successful, the apply process will continue with the next controller (if applicable).
- If the Firmware Apply was **not successful**, the apply process for the entire control system will result as **failed** and will stop the apply process for any subsequent controllers on the schedule.
- Any condition of the apply process that results in a status that is **not successful** will result in a **failed** status.
- The activity history will be updated with the non successful status and the reason for failure.
- The last message in the activity history will report the warning message stating that the controller may not be working properly or that the controller is unstable and should be evaluated immediately.

7 Advisories

Advisories, such as alarms, fails and notices, can be viewed in an advisory view page depending on where the advisory was retrieved. There are two types of advisory view pages: the *Live Advisory View* and the *Historical Advisory View*.

7.1. Live Advisory View

The *Live Advisory View* page displays the current advisories (alarms, fails, and notices) retrieved directly from one or more controllers in real-time. Advisories can have **High**, **Medium**, or **Low** priorities, which an authorized user can respond to with an appropriate action.

Live advisories can be viewed at any control system level or unit level in the navigation tree. To open *Live Advisory View* page, click to select **View Live Advisories** from a level menu.

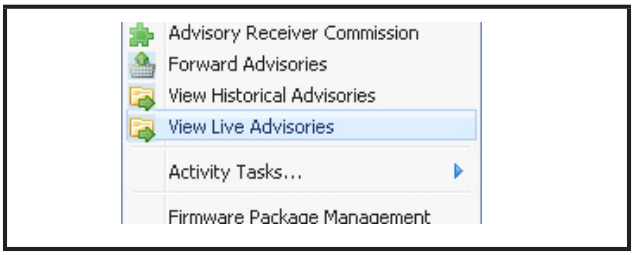


Figure 7-1 *- View Live Advisories Menu*

The advisories are immediately received when the *Live Advisory View* page is loaded. The controls on this page will be disabled while advisories are being retrieved:

Figure 7-2 *- Loading Live Advisory View Page*

Acknowledge, **Reset**, and **Clear** buttons are disabled until at least one advisory is selected.

Advisory retrieval should normally take 10 seconds per unit, but could take longer for first-time retrieval; retrieval speed could vary depending on current network traffic conditions.

7.1.1. Navigation

Live advisories are displayed in a table and can be sorted.

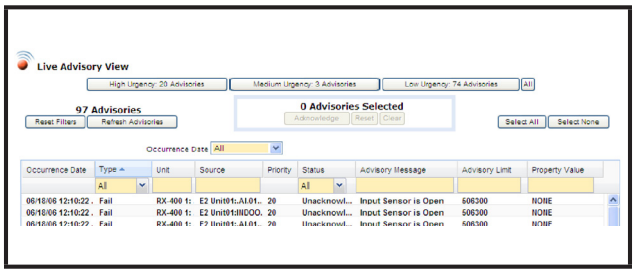


Figure 7-3 *- Live Advisory Table Column Categories*

- **Occurrence Date** shows the date and time when the advisory was generated. Clicking the header will arrange the display of advisories (newest to oldest).
- **Type** defines the kind of advisory that has been generated.
- **Unit** shows which controller the advisory was generated from. Click on this header to arrange advisories alphabetically according to Unit.
- **Source** information shows parent controller (from which controller the advisory was generated), application, and property information about the advisory. Clicking on this header will arrange Source column entries in alphabetical order.
- **Priority** details the level of urgency placed on the advisory (high, medium, or low expressed as numerical value).
- **Status** shows whether the advisory has been Acknowledged or is Unacknowledged. Click on this header to arrange advisories alphabetically according to Source.
- **Advisory Message** column reports an explanation of the advisory. Click on this header to arrange advisories alphabetically according to Advisory Message.
- **Advisory Limit** reports on the high or low limit the advisory exceeded that generated the advisory.
- **Property Value** shows the property name of the ap-

plication from where the advisory was generated.

- The **Select All** and **Select None** buttons allow you to choose all advisories or deselect (clear all) with one click. The number of selected advisories is always displayed under the urgency buttons. Advisories that are selected are highlighted.
- Right-clicking an advisory opens a window that provides access to expanded information (detailed information about an advisory including status, priority, messages, and more) and a terminal mode window:

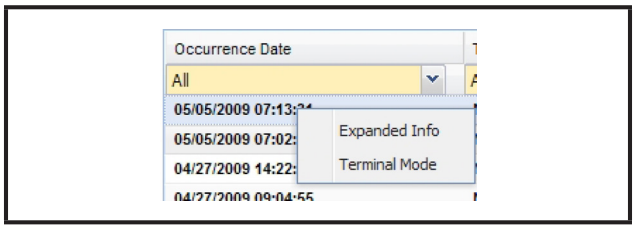


Figure 7-4 *- Terminal Mode Option*

An example of expanded information belonging to an advisory:

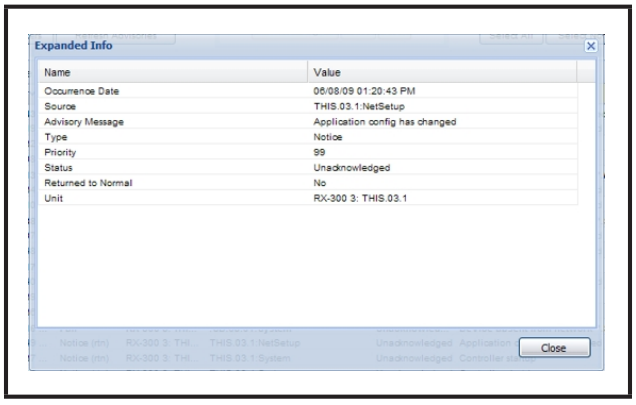


Figure 7-5 *- Advisory Expanded Info Window*

The *Expanded Info* window includes:

- Date and time when the advisory was generated
- The actual application or device that caused the advisory to be generated
- Description of why the advisory was generated
- The type of advisory (alarm, notice, failure)
- The advisory's priority setting
- The advisory's current status
- Whether the advisory was returned-to-normal
- The parent controller where the advisory originated

The table can be configured to show only certain table column header categories. To configure, move cursor to one of the column headers to show the arrow-down button. Click on the arrow to expand and mouse over to **Columns** to show the list of column categories. By default, all categories are checked. Uncheck any category you do no want to appear on table. Enable the corresponding checkbox to sort column with these parameters. Changes will take place as soon as a checkbox is enabled or disabled.

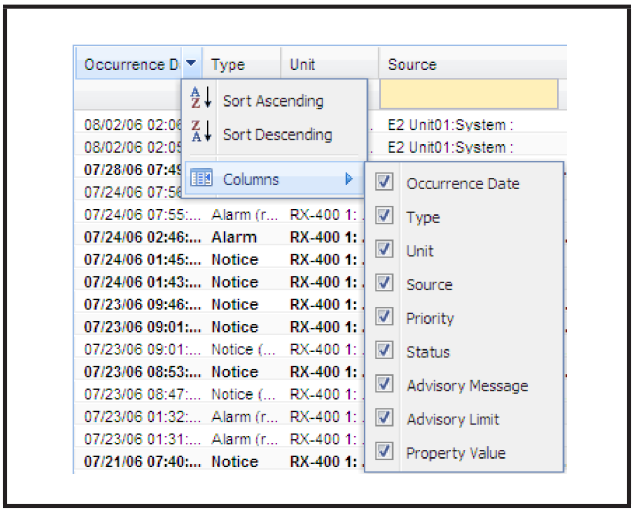


Figure 7-6 *- Configuring Live Advisories View Display Table*

To export current page information, select from the available export formats from the drop-down underneath the table: **Excel Spreadsheet**, **HTML**, and **PDF**. Click **Open** or **Save** on the *File Download* window to proceed with the download.

NOTE: Only the columns currently shown on the page will be exported during file download. Enable or disable column headers to show or hide them during download.

7.1.2. Filtering

Displayed advisories can be filtered into subsets based on various filtering criteria:

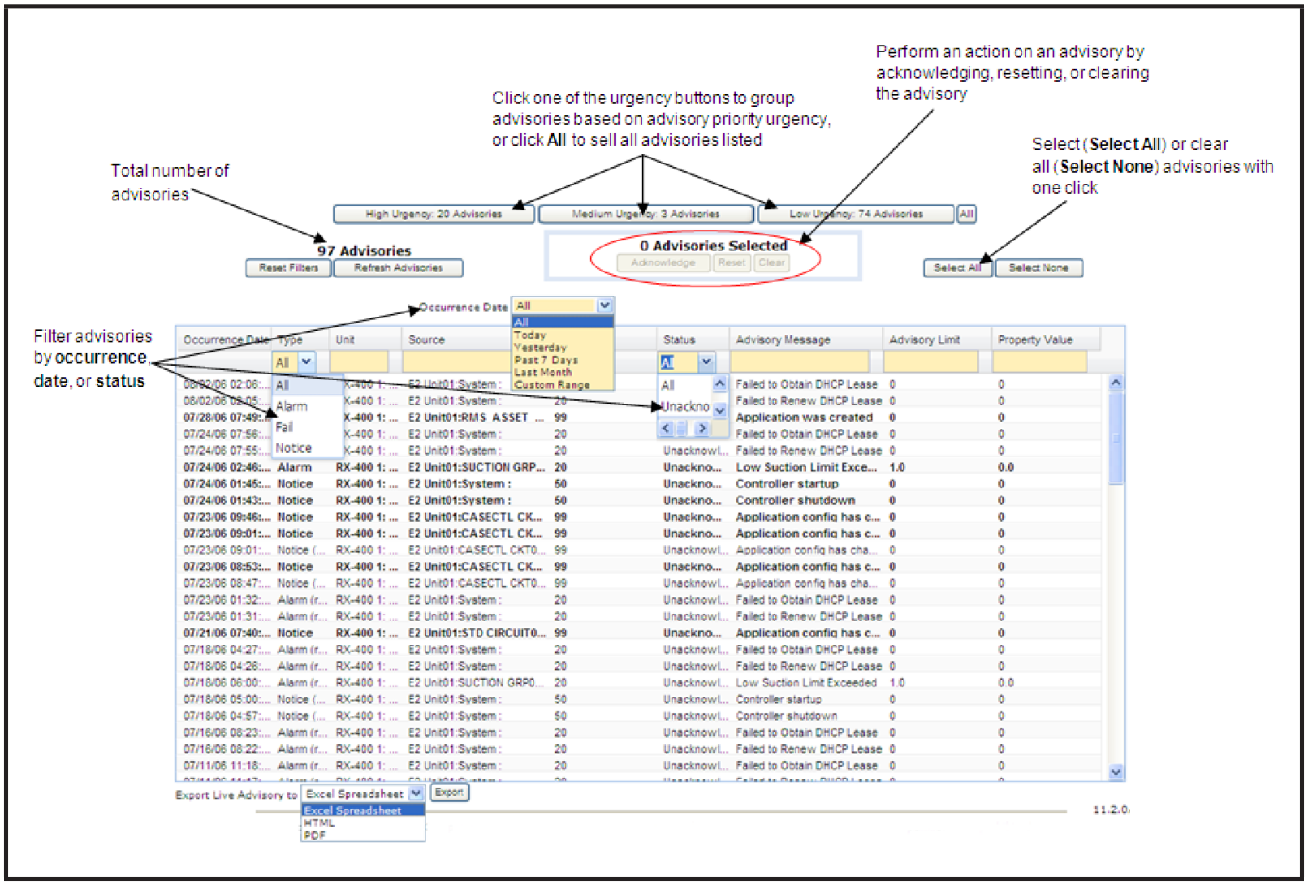


***Figure 7-7** - Live Advisory View Page*

Default filtering shows advisories by their **Occurrence Date** (newest to oldest). This filter can be set to group advisories received **Today**, **Yesterday**, the past week (**Past 7 Days**), month (**Last Month**), or by custom date range (**Custom Range**).

Filtering by **Type** groups advisories by **Alarm**, **Fail**, or **Notice** types. Filtering by **Status** groups advisories by **Acknowledged** or **Unacknowledged**.

Bolded rows indicate active advisories. Active advisories are advisories that are unacknowledged and have not returned to normal.

Live advisories can also be filtered by priority: **High Urgency**, **Medium Urgency**, and **Low Urgency**.

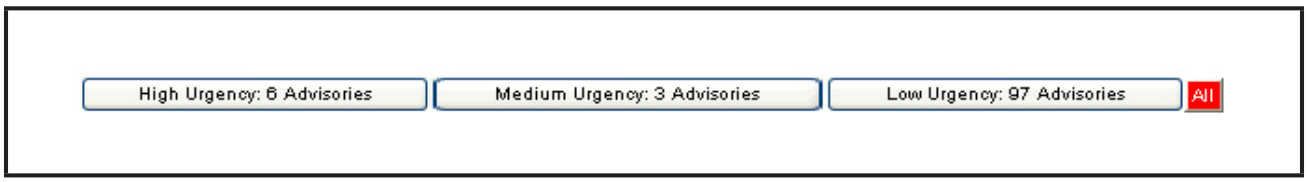


***Figure 7-8** - Display Live Advisories Based on Priority*

7.2. Historical Advisory View

The *Historical Advisory View* page displays the current advisories (alarms, fails, notices, warnings) from the database in high, medium, and low urgencies. The Historical Advisory View is accessible from any location in the navigation tree from the right-click menu. The advisory alert icon (refer to **Section 2.5., *Site Manager Interface***) appears when a new advisory is received and can be seen from any page in the software. Clicking on the alert icon will open this page so the advisory can be viewed. Once the advisory has been viewed the alert icon will turn off until another advisory is received.

The Advisory screen is accessible from any location in the navigation tree on the right-click menu or point properties menu, and will look similar to ***Figure 7-9***:

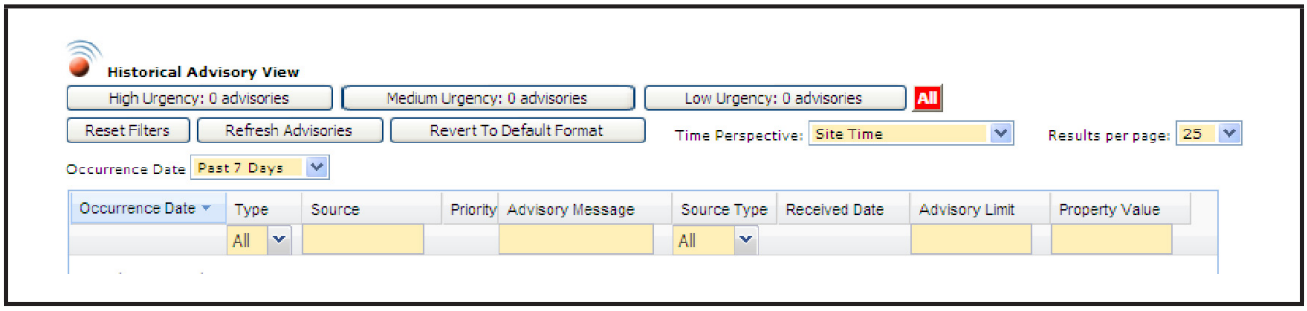


Figure 7-9 *- Historical Advisory View Page*

- Choose which advisories to view from the **Occurrence Date** drop-down list. Advisories from **Today**, **Yesterday**, **Past 7 Days**, and **Last Month** can be viewed, or select **All** to show all historical advisories. You can also define a custom date range (**Custom Range**) to display live advisories within the date you specified.
- Select the type of advisory that you would like to view from the **Type** drop-down list (alarm, notice, fail, or warning) and whether it was returned to normal (RTN).
  - **Alarms** are high-priority warnings about important system conditions that need immediate attention.
  - **Notices** are low-priority messages that signify a condition or system change that requires no immediate attention, or may be a symptom of a condition that may require attention in the future.
  - **Failures** are pre-programmed advisories that are generated when a controller or device failure occurs, such as a board going off-line or a sensor short.
  - **Warning** is a type of advisory dependent on the type of controller used.
- **Source** - Shows parent controller (from which controller the advisory was generated), application, and property information about the advisory. Click this header to alphabetized Source entries.
- **Priority** - Details the level of urgency placed on the advisory (high, medium, or low expressed as a numerical value). Click on this header to arrange advisories in descending level of priority, 1 being the highest.
- **Advisory Message** - Details any message from the controller or device that accompanies the advisory (protocol advisory message that comes from the control system).
- **Source Type** - Shows the software application from which the advisory was generated. Click this header to alphabetize Source Type entries.
- **Received Date** - Reports when the advisory was *first detected*.
- **Advisory Limit** - Reports on the high and low limit the advisory exceeded that generated the advisory.
- **Property Value** - Shows the property name of the application from where the advisory was generated.

You can also organize the advisories that appear on this page by clicking the buttons along the top labeled: **High Urgency**, **Medium Urgency**, or **Low Urgency** and the advisories will be filtered respectively in descending order (most current advisories appear first at the top of the list). Click the **All** button to see all advisories displayed in descending order.

Customize column settings based on your preference. To customize arrangement, click on each column to set how advisories are sorted or drag and drop. You can also add and show more columns in the table (click the checkbox in the list of available columns) or remove one or more columns (uncheck to remove) and set the width of columns by dragging along the cursor to the desired width. (Settings made to the page will be saved, such that when you leave and return to the page, same page settings apply.)

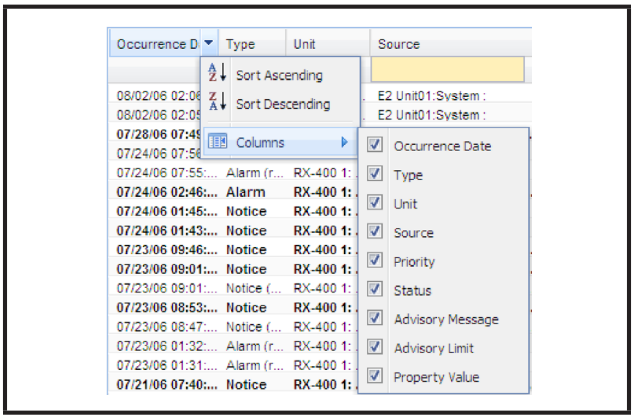


***Figure 7-10** - Add or Remove Columns in Historical Advisory View Table*

Other page sorting options and navigation are the following:

- **Occurrence Date** - can be set to **Today**, **Yesterday**, **Past 7 Days**, **Last Month**, or **Custom Range**
- **Results per Page** - can be set from the default of 25 all the way up to 100
- **Time Perspective** - gives you the option to sort by actual site time, or by user's time
- **Reference Date** - sorts advisory data by date
- **Refresh Advisories** - reloads the page to the most current view
- **Reset Filter** - reverts filtering the user has customized back to the defaults
- **Revert to the Default Format** - resets the page and returns you to the default page format
- **Export Historical Advisories To** - allows you to export the list of advisories to an **Excel spreadsheet**, **PDF**, or **HTML**. Select from the drop-down list and click the **Export** button to export the advisories to the desired file type. A *File Download* window will open where you can choose to save the advisories to a location on the PC, or open them as the selected file type.

NOTE: When you click an advisory at the Unit level, a terminal mode window will automatically pop up for that unit.

For Einstein and E2 Controllers only:

Advisories are grouped into different Urgency Buckets for E1 and E2 controller. Basically, if an advisory does not get caught by the High Bucket or the Medium Bucket, then it will be categorized into the Low Bucket. Refer to ***Table 7-1*** for the classification of advisories for E1 and E2 based on the Urgency Bucket.

LEGEND:

Status: Unack (1), Ack (2), Reset (3), Clear (4) (for first version, all are UnAck)

Type: Alarm (1), Notice (2), Fail (3)

Return to Normal: No, Yes

Priority: 1 (high) - 99 (low)

Urgency Bucket	Status	Type	Return-to-Normal	Priority
High	Unack(1)	Fail(3)	No	1-20
		Alarm(1)		
Medium	Unack(1)	Notice(2)	No	1-50
	Unack(1)	Fail(3)	No	21-50
		Alarm(1)		
Low	Unack(1)	Fail(3)	Yes	51-99
		Alarm(1)		
		Notice(2)		
	Ack(2)	Fail(3)	Yes	1-99
		Alarm(1)		
		Notice(2)		
	Reset(3)	Fail(3)	Yes	1-99
		Alarm(1)		
		Notice(2)		
	Clear(4)	Fail(3)	Yes	1-99
		Alarm(1)		
		Notice(2)		

***Table 7-1** - High, Medium, and Low Urgency Buckets for E1 and E2*

7.2.1. Connection Verification Report

This report allows users to determine which sites in the navigation tree are in good communication status and which sites are not (problem sites). The database is searched for this information according to the user-configured settings and a report issued on the database findings. The Connection Verification Report consists of a source path and date, but is initially sorted by date.

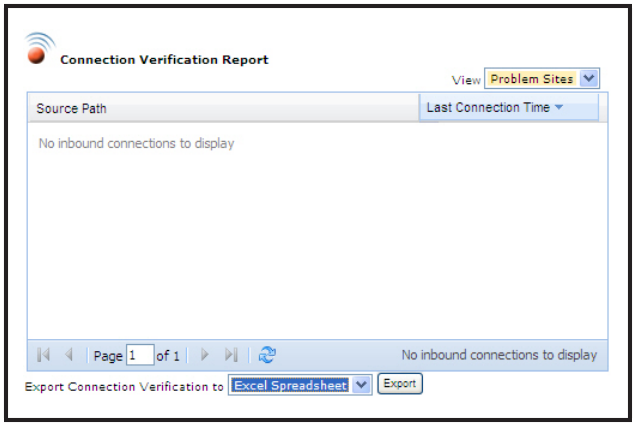


Figure 7-11 *- Connection Verification Report Page*

For the sorting menu, click on the **Last Connection Time** drop-down arrow:

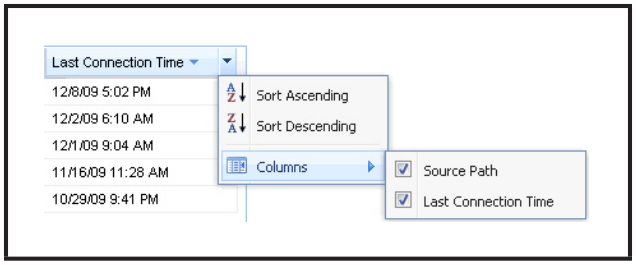


Figure 7-12 *- Sort Connection Verification Report Display*

To export current data, select from the available export output options from the drop-down below the table: **Excel Spreadsheet**, **HTML**, and **PDF**.

Click **Open** or **Save** on the *File Download* window to proceed with the download.

7.2.1.1. Setting Up a Problem Sites Report Email (Administrators Only)

A system schedule can be configured to run and send a report (via email) listing the problem sites that occurred over a set period of time. Problem sites are sites with control units that either failed to receive test calls or failed to connect to the system server. For administrators to set up an email of this report, go to the *Schedule Manager* page.

Before running the schedule, the administrator should set the following:

- Set Mail.smtp.host value to super user.
- Provide an email address during user setup. Problem Sites Report Email will not run if an email address is not provided. For email setup, go to **My Info** for email setup.

Schedule Manager

To set up this schedule, in the *Schedule Manager* page, click the **Show System Schedules** checkbox (***Figure 7-13***); system schedules will display in the schedules list.

NOTE: The Show System Schedules checkbox is disabled for user-level accounts and will not be visible on the page. Only admin level users can access this page.

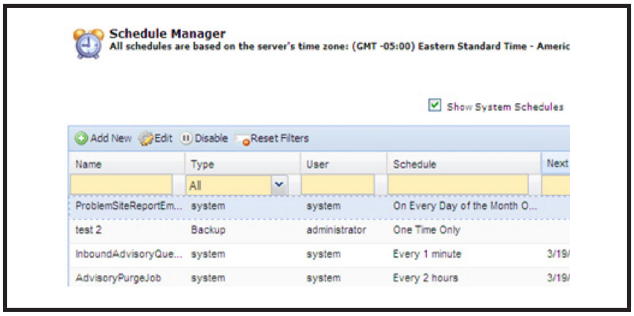


Figure 7-13 *- Show System Schedules Checkbox*

By default, the system performs the send out of email reports at 8:00 AM daily. To edit the default schedule, click the **Show System Schedules** checkbox, click **ProblemSiteReportEmailJob**, and click **Edit**. The Schedule Manager Configuration page opens.

NOTE: Problem Sites Report Email is a system schedule; use caution when configuring this schedule to avoid compromising or disabling normal system functionality.

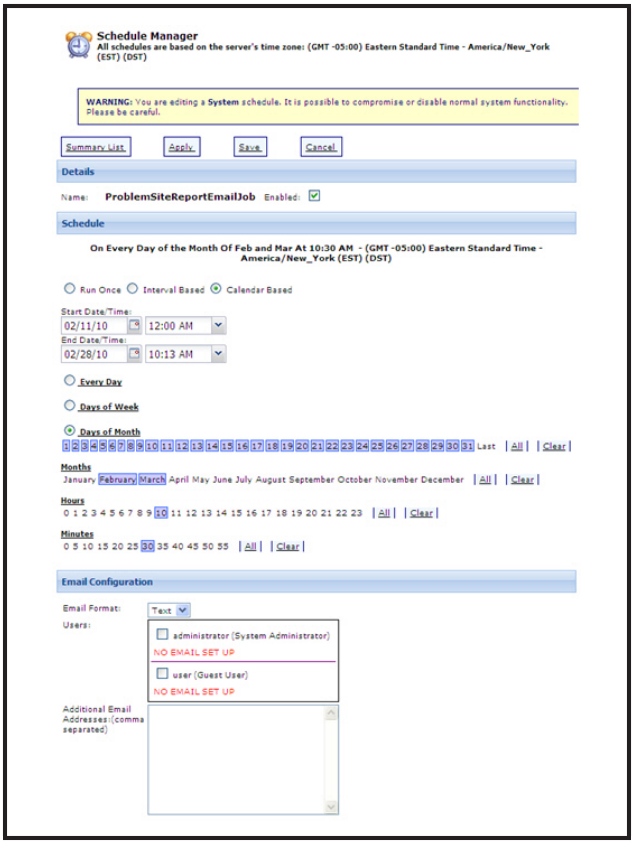


Figure 7-14 *- Configuring Problem Sites Email Report Schedule*

Configure how often the schedule will run and send out the report in the Schedule section. Refer to **Section 4.2.4.1., *Setting Up User Schedules*** of the Schedule Manager topic for more information.

In the Email Configuration section:

- Choose an **Email Format** (HTML or Text).
- In the **Users** list, enable the checkbox to select the user who will receive the email report (names and email addresses (if any) of users that were saved in the database will display in this list).
- Optionally, enter additional email addresses in the **Additional Email Addresses** field to include recipients who are not listed in the **Users** list (or if you want the report to send to your other email accounts). Separate email addresses with a comma (“,”).

Click **Save** or **Apply** to save the changes made, or click **Cancel** or **Summary List** to return to the list of all schedules.

If problem sites exist prior to every send-out schedule, a report will be sent containing an information about the number of problem sites, the location of sites, and the date and time these sites last had connection. If none exists, a report will still be sent informing the user that no problem site exists.

7.2.2. Purge Inbound Connections

Controllers contact Monitoring once a day to verify the connection. In this case, the protocol will dispatch an event that does not include advisories, just connection verification information or records. These records may be used to perform diagnostics on sites that call in with the wrong Site ID number, or have an inbound connection that is terminated unexpectedly.

With the Purge Inbound Connection Records feature, you can set purge configurations for these inbound connection records. Choose to keep *all* records (*never* purge - the default setting) or control the number of records you keep by choosing to purge only a specific number of records for a time period of weeks or months.

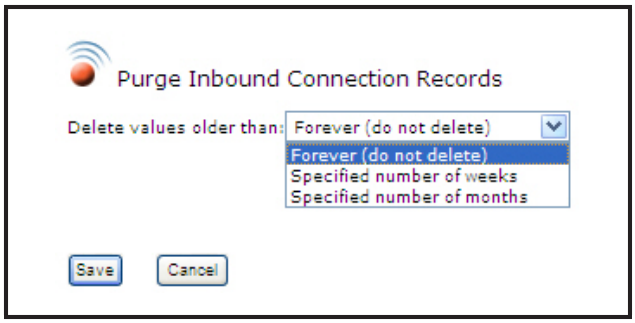


Figure 7-15 *- Purge Inbound Connection Records Page*

If you choose to purge a specific number of connection records, specify either weeks or months from the drop-down list and enter the specific number into the **Number of weeks/months to keep** field. Enter the time of day to remove the older items in the spaces provided and click **Save** to save changes, or **Cancel** to exit the screen.

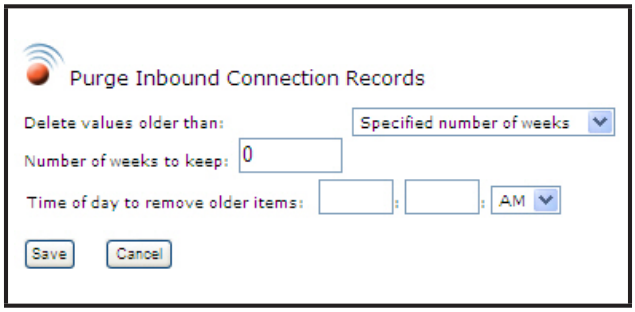


Figure 7-16 *- Configure Purge Inbound Connection Records*

7.2.3. Advisory Forwarding

Advisories can be forwarded to an e-mail address. Open the *Forward Advisories* page by clicking on **Forward Advisories** from any tree level right-click menu, or from the **Activities** drop-down menu > **Activities** > **Forward Advisories**.

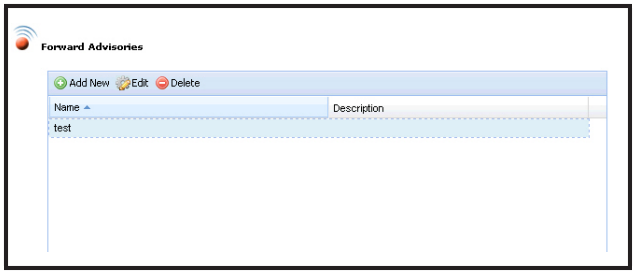


Figure 7-17 *- Forward Advisories Page*

Click the **Add New** button to set up forwarding to a new address, or to edit an existing address, click on the address in the box (if one is present, it will be visible) and it will take you to the page below:

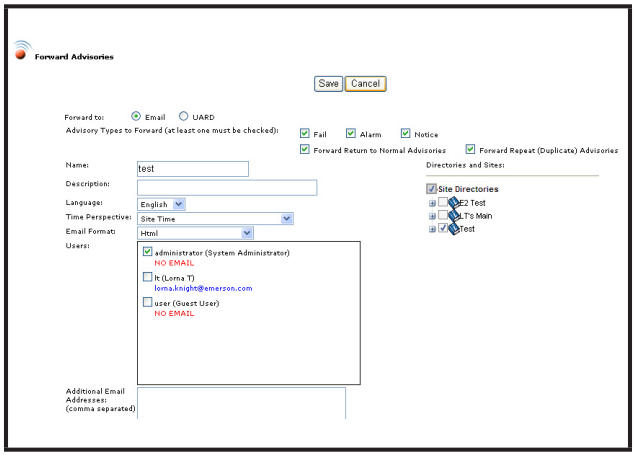


Figure 7-18 *- Edit Advisory Forwarding*

Choose what kinds of advisories will be sent via e-mail by activating the **Fail**, **Alarm**, or **Notice** checkboxes. If advisories that have been returned to normal (**Forward Return to Normal Advisories**) or duplicate advisories should keep being sent (**Forward Repeat (Duplicate) Advisories**), activate those checkboxes.

Give the advisory forward a unique identifier in the **Name** field. Because multiple forwarding instances or profiles can be set up, you can distinguish them and indicate a purpose/description for each one.

Description is an optional field for indicating what the advisory forward is for (its purpose). For example, "Notify all west coast supervisors of compressor failures."

Select English or Spanish for **Language**.

Time Perspective of the advisory can set to Site Time, User Time (your current time zone), or the Server Time.

E-mail Format can be set up as Html, Text, or Cell Phone (messages sent to cell phones for each individual alarm will be abbreviated to conserve space).

Enter the e-mail addresses in the **Users** box, and any overflow addresses into the **Additional E-mail Addresses** box. (When the admin and guest users have e-mail addresses entered for them, the NO EMAIL will disappear and checking the boxes will send the advisories to the e-mail associated with those names.)

Check the directories and sites hierarchy that are applicable to the advisories being sent. If accessing this page directly from the navigation tree, the hierarchy will automatically be visible and checked.

Click **Save** to complete the advisory forwarding setup.

7.2.4. Advisory Receiver Commissioning

The *Advisory Receiver Commission* page allows you to set advisory configurations such as connection test time and advisory filter priorities for alarms, failures, and notices. This user-specified data is sent to the controller so that the controller will know where to send advisories and what filters to use. The **Control System Id** parameter is the unique identifier for that set of controllers set up with Monitoring. This will be set automatically by Site Manager if there is no unique ID in the system.

The **Primary** and **Backup Destination Address** fields are where the controller will send an advisory if an advisory occurs. (These addresses were entered during the installation process in the *Advisory Receiving Setup* window. Check with your IT Administrator for further information.)

Click the **Commission** button to send the configurations to the E2 controller, **Cancel** to stop the commissioning process and exit the screen.

Activity History will show the details of the commissioning process (both the query of the controller for the parameters and the sending of applicable parameters after initializing commissioning).

From the E2 controller, verify that the advisory commissions have been sent to the E2 controller:

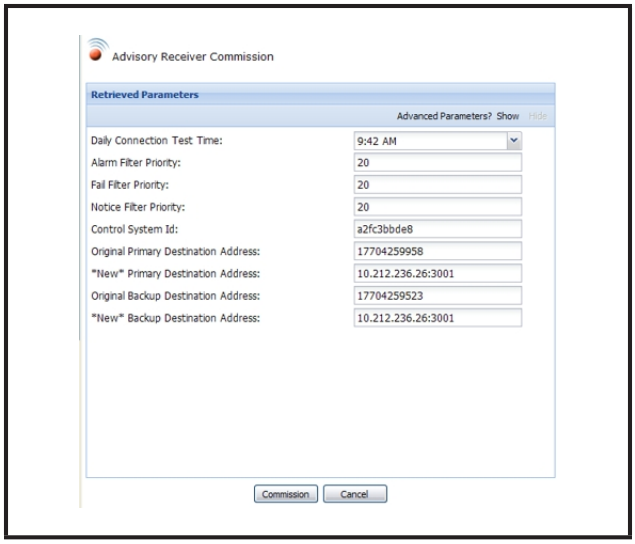


Figure 7-19 *- Advisory Receiver Commission Page*

Verifying Advisory Commission Setup in the E2

From the E2 controller, press the **Menu** button to open the Main Menu:

8. Status

6. Monitoring

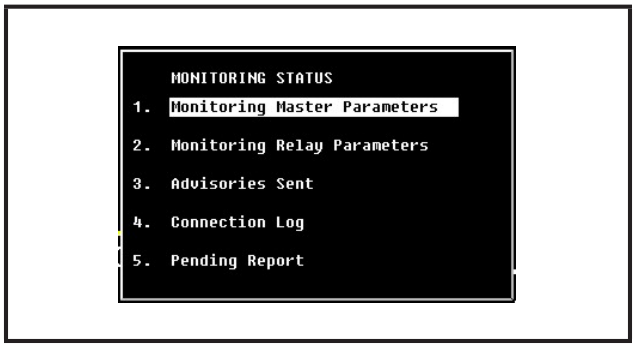


Figure 7-20 *- E2 Screen - Monitoring Status Screen*

From the Monitoring Status menu, choose menu items **1-5** to verify that the configuration has been sent to the E2 and that the various settings are correct.

Terminal Mode

From the unit level on the navigation tree, launch the Terminal Mode viewer and log in to the E2.

In the E2, press **Menu** and **7**, **3**, **5**, **4**. On the System Tests menu, set **Advisory Test** to **Yes** for testing.

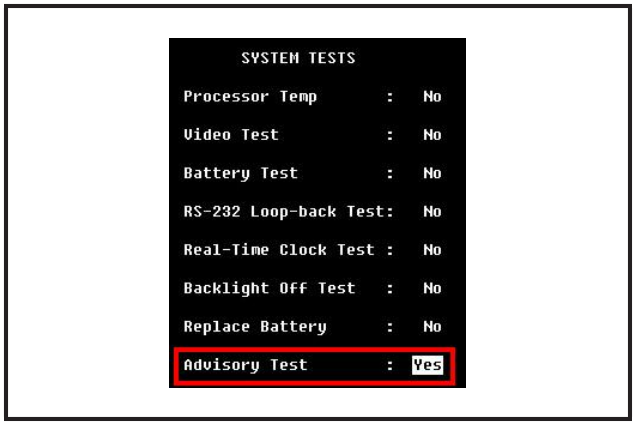

SYSTEM TESTS
Processor Temp : No
Video Test : No
Battery Test : No
RS-232 Loop-back Test: No
Real-Time Clock Test : No
Backlight Off Test : No
Replace Battery : No
Advisory Test : Yes

Figure 7-21 *- Advisory Test Set to Yes*

Press **Enter** after selecting **Yes**, and when prompted by the pop-up box, press **Enter** again before exiting the page to generate the test advisory. (If **Enter** is not pressed, the test advisory will not be generated.)

Press the alarm icon (**F7**) to see the alarm log and view any test alarms.

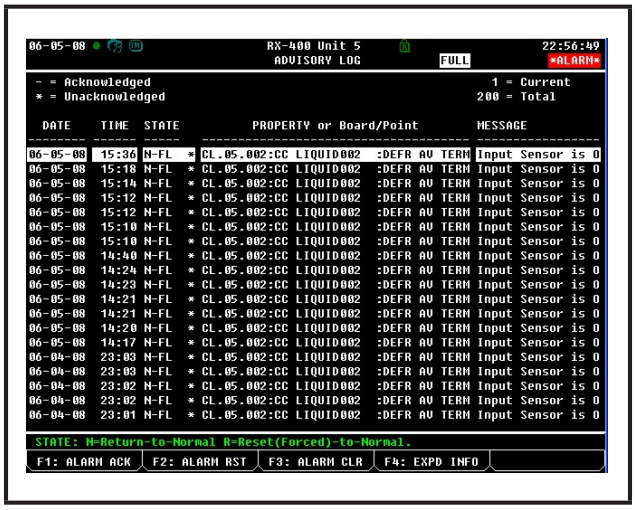

06-05-08 RX-400 Unit 5 22:56:49
ADVISORY LOG FULL *ALARM*
- = Acknowledged 1 = Current
* = Unacknowledged 200 = Total
DATE TIME STATE PROPERTY or Board/Point MESSAGE
06-05-08 15:36 N-FL * CL.05.002:CC LIQUID002 :DEFR AV TERM Input Sensor is O
06-05-08 15:18 N-FL * CL.05.002:CC LIQUID002 :DEFR AV TERM Input Sensor is O
06-05-08 15:14 N-FL * CL.05.002:CC LIQUID002 :DEFR AV TERM Input Sensor is O
06-05-08 15:12 N-FL * CL.05.002:CC LIQUID002 :DEFR AV TERM Input Sensor is O
06-05-08 15:12 N-FL * CL.05.002:CC LIQUID002 :DEFR AV TERM Input Sensor is O
06-05-08 15:10 N-FL * CL.05.002:CC LIQUID002 :DEFR AV TERM Input Sensor is O
06-05-08 15:10 N-FL * CL.05.002:CC LIQUID002 :DEFR AV TERM Input Sensor is O
06-05-08 14:48 N-FL * CL.05.002:CC LIQUID002 :DEFR AV TERM Input Sensor is O
06-05-08 14:24 N-FL * CL.05.002:CC LIQUID002 :DEFR AV TERM Input Sensor is O
06-05-08 14:23 N-FL * CL.05.002:CC LIQUID002 :DEFR AV TERM Input Sensor is O
06-05-08 14:21 N-FL * CL.05.002:CC LIQUID002 :DEFR AV TERM Input Sensor is O
06-05-08 14:21 N-FL * CL.05.002:CC LIQUID002 :DEFR AV TERM Input Sensor is O
06-05-08 14:20 N-FL * CL.05.002:CC LIQUID002 :DEFR AV TERM Input Sensor is O
06-05-08 14:17 N-FL * CL.05.002:CC LIQUID002 :DEFR AV TERM Input Sensor is O
06-04-08 23:03 N-FL * CL.05.002:CC LIQUID002 :DEFR AV TERM Input Sensor is O
06-04-08 23:03 N-FL * CL.05.002:CC LIQUID002 :DEFR AV TERM Input Sensor is O
06-04-08 23:02 N-FL * CL.05.002:CC LIQUID002 :DEFR AV TERM Input Sensor is O
06-04-08 23:02 N-FL * CL.05.002:CC LIQUID002 :DEFR AV TERM Input Sensor is O
06-04-08 23:01 N-FL * CL.05.002:CC LIQUID002 :DEFR AV TERM Input Sensor is O
STATE: N-Return-to-Normal R-Reset(Forced)-to-Normal.
F1: ALARM ACK F2: ALARM RST F3: ALARM CLR F4: EXPD INFO

Figure 7-22 *- Advisory Log*

8 Configuration

8.1. Configuring Activities

Activities can be configured from individual configuration pages. Choose the property you wish to configure from the navigation tree and right-click to open the menu. Hover cursor over **Configure** to show all available activity configuration menus.

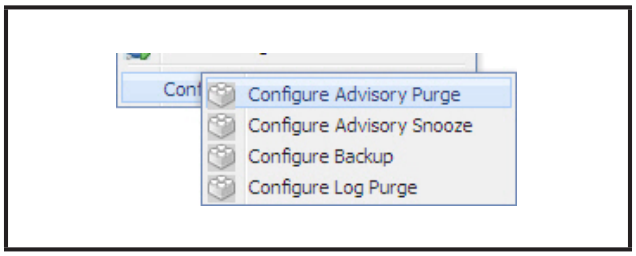


Figure 8-1 *- Configure Activity Menu*

8.1.1. Configure Advisory Purge

Configure Advisory Purge allows you to set parameters for advisories. Right-click on a navigation tree level and select **Configure Advisory Purge** to open the page.

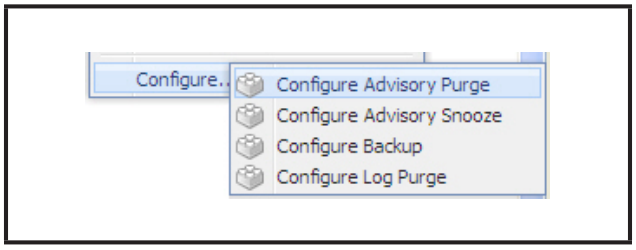


Figure 8-2 *- Configure Advisory Purge*

The default setting of keeping advisories forever (advisories are never deleted) is the first Activity Item on this page and can also be set from the second radio button under "OR".

To specify a number of weeks or months to keep advisories, click the radio button for "**Delete values older than**" under the "OR" section and choose the desired setting from the drop-down list.

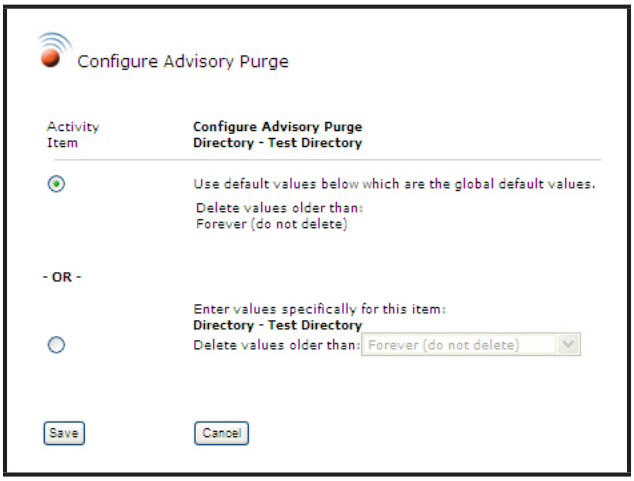


Figure 8-3 *- Configure Advisory Purge Page*

8.1.2. Advisory Snooze Configuration

Advisory Snooze Configuration allows you to set an alarm wait time (a Snooze alarm) to reduce the total amount of recurring advisories in the database. When the Snooze flag is ON in the database, advisories will be snoozed. You can set up a default snoozing period at the customer level, site level, or specific advisory level.

Once sent, a Snoozed advisory will not be sent to the monitoring server again until the Snooze has expired and the advisory is still active. The advisory will then be re-sent to the monitoring server as a new advisory.

Snooze configuration will set the snooze time for a historical advisory.

Choose to use default values (**6 hours**) or set your own configuration from the drop-down list under the "OR" section. Choose advisories never to be snoozed, or for a duration of time (minutes or hours). When you choose a duration of snooze time, enter the number of hours or minutes in the field depending on which one you select. The default value for hours and minutes is **6**.

Click **Save** to save changes and see the confirmation screen. Click **Cancel** to exit.

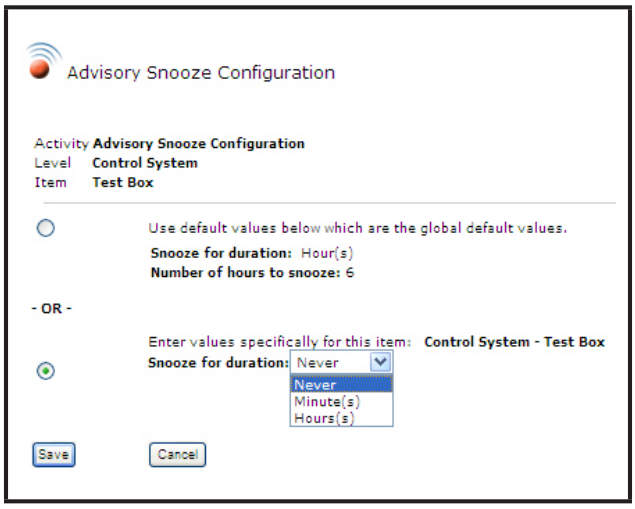


***Figure 8-4** - Advisory Snooze Configuration Page*

8.1.3. Configure Backup

To configure the Backup activity, right-click in the navigation tree to access **Configure Backup**, and configure from the *Configure Backup* page. You can use the default value or choose a user-specified number.

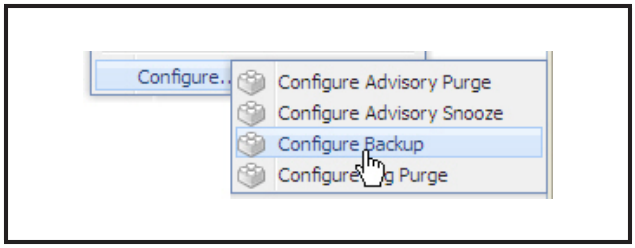


***Figure 8-5** - Backup Menu*

To run the Backup, right-click from the navigation tree to access **Backup**, or click **Backup** from a properties page.

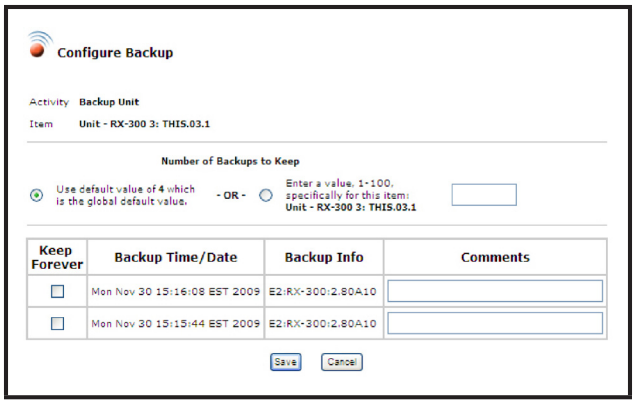


***Figure 8-6** - Configure Backup Page*

The *Configure Backup* page will display the following information about the activity you are configuring:

- **Activity**: Which activity you are configuring.
- **Item**: The controller and type being configured.
- **Number of Backups to Keep**: To use the default, enable the first radio button to use the default value of **4**. (If a fifth backup is performed, the oldest Backup will be overridden.) If you wish to keep five backups or more, enable the second radio button and the desired value (1-100) into the field.
- **Keep Forever**: Enable this checkbox to store the desired backup in the database indefinitely. This option is available for each Backup.
- **Backup Time/Date**: The date and time the activity was requested to start.
- **Backup Info**: The type of controller and version number.
- **Comments**: Enter any comments about the backup in this field.

Click **Save** to store the information or **Cancel** to exit.

8.1.4. Configure Log Purge

Activity History data is stored in the database but can be deleted with the Configure Log Purge feature. The *Configure Log Purge* page allows you to set pa-

rameters for the Log Purge activity. Right-click from any level of the navigation tree, hover over **Configure**, and click **Configure Log Purge**.

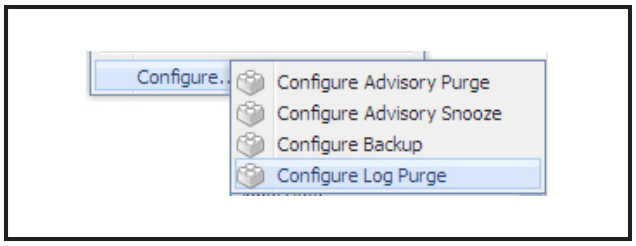


Figure 8-7 *- Configure Log Purge Menu*

The *Configure Log Purge* page opens:

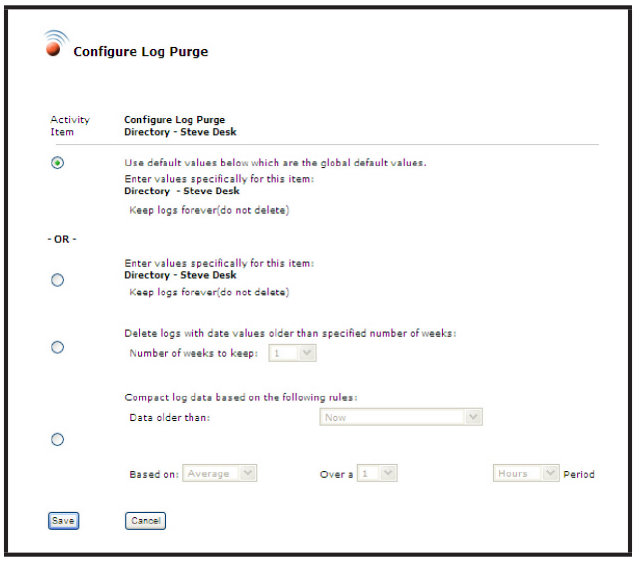


Figure 8-8 *- Configure Log Purge Page*

There are four options from which you can choose the configuration of purging:

- **Use default values below which are the global default values** - purging of logs depends on the value that is pre-configured in the system.
- **Keep logs forever (do not delete)** - logs will never be deleted (depending on what specific level of the tree the activity was clicked on). For example, in the figure above, log data of directory "Steve Desk" will be stored in the database permanently.
- **Delete logs with date values older than specified number of weeks** - purges logs that are older than the number of weeks that is specified by the user. Click the radio button to enable the **Number of weeks keep** drop-down and select a number from the list (choices are from 1-156). For example, if 2 is selected, the system will only store logs that are 2 weeks old or less and purge logs that are older than 2 weeks.
- **Compact log data based on the following rules** - logs older than the date that you specify will be reduced depending on the following rules:

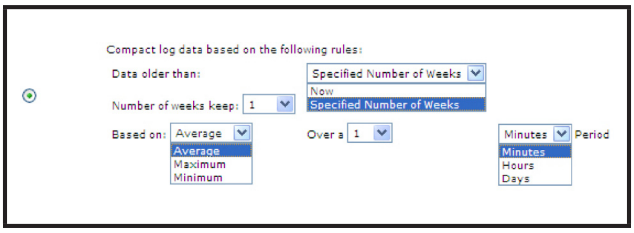


Figure 8-9 *- Compact Log Data Based On Rules*

- **Data older than**: If **Now** is selected, logs older than the current date will be compacted based on the rules that you specify thereafter. If **Specified Number of Weeks** is chosen, select a number from the **Number of weeks keep** drop-down.
- **Number of weeks keep**: Select a number from the list. (This option will hide when the **Data older than** rule is set to **Now**.)
- **Based on**: (the method of compaction)

AVERAGE: Log values for the established time period will be added and the sum of all values will be divided by the number of logs.

MAXIMUM: Over the set period of time, the log with the highest (max) value will be stored.

MINIMUM: Over the set period of time, the log with the lowest (min) value will be stored.

Example: Logs recorded were 10, 20, 10, and 10. Compaction by AVERAGE will yield a log value of 12.5. Compaction by MAXIMUM will yield a log value of 20 and a value of 10 if by MINIMUM.

- **Over a/Period**: Logs will be compacted depending on these settings. Specify the amount of time for compression of the AVG, MIN, or MAX values. Select a unit of time from the **Period** drop-down and choose a number from the **Over a** drop-down.

Click **Save** to save the settings and exit, or **Cancel** to exit the page without saving.

Example of Compacting Log Data

Consider the following log data for compaction:

Date and Time Recorded	Value
April 1, 2010 12:00pm	10
April 1, 2010 12:15pm	20
April 1, 2010 12:30pm	10
April 1, 2010 12:45pm	20

Table 8-1 *- Example of Compacting Log Data*

Date and Time Recorded	Value
April 1, 2010 01:00pm	40
April 1, 2010 01:15pm	5
April 1, 2010 01:30pm	15
April 1, 2010 01:45pm	35
April 1, 2010 02:00pm	10

Table 8-1 *- Example of Compacting Log Data*

Assuming that compaction is to be carried out based on the *Average* and the established time period is *1 hour*, the following log values will be stored in the database:

Date and Time	Reduced Value
April 1, 2010 12:00pm	15
April 1, 2010 01:00pm	23.75

Table 8-2 *- Example of Compacting Log Data (Average)*

1. Log values that were recorded for the first hour will be grouped together and compressed by Average. That is: (10 + 20 + 10 + 20) / 4 = 15.
2. The equivalent value, which is 15, will be stored in the database; old values (10, 20, 10, and 20) will be purged.
3. For the next hour, log values will be compressed, (40 + 5 + 15 + 35) / 4 = 23.75.
4. The compressed value (23.75) will be stored and old values (40, 5, 15, and 35) will be purged.

If data compaction is to be carried out based on the *Minimum* and the established time period is *45 minutes*, the following data will result:

Date and Time	Reduced Value
April 1, 2010 12:00pm	10
April 1, 2010 12:45pm	5
April 1, 2010 01:30pm	10

Table 8-3 *- Example of Compacting Log Data (Minimum)*

Regardless of the number of instances, the lowest value recorded within the specified time period will be stored in the database and the rest will be deleted. For example, logs that were recorded for the first hour (10, 20, and 10) comprise two instances of the minimum log value, 10. Only one instance is recorded, the other is deleted.

Same rules apply for compaction by *Maximum*, except that the highest value is recorded:

Date and Time	Reduced Value
April 1, 2010 12:00pm	20
April 1, 2010 12:45pm	45
April 1, 2010 01:30pm	35

Table 8-4 *- Example of Compacting Log Data (Maximum)*

8.2. Configuration Tools

8.2.1. List Power Builder

Create, view, edit, and delete lists with the List Power Builder tool. Power Builder creates large-scale lists by specifying a filter or matching criteria of items to add or remove from a list instead of using each item in the list individually; as a result, large lists can be built quickly.

The *List Power Builder* window can be launched from 3 different places in Site Manager: The *Watch Points* screen, *Schedule Manager* page when scheduling to Retrieve Logs By List, and from the Setpoint Broadcast Scheduler configuration page (Target Group Controller Group area).

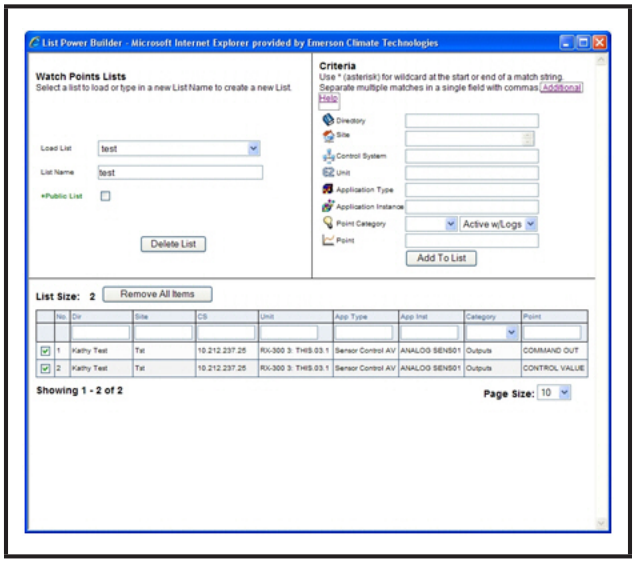


Figure 8-10 *- Power Builder Window*

The title in the top left will vary depending on the type of lists that the power builder is currently working with. This can be **Watch Points Lists** or **Target**

Controller Groups Lists depending on where the Power Builder was launched from. Only one type of list may be worked with at a time. Note that Watch Points Lists are used both on the Watch Points page and for Retrieving Logs From List.

The **Load List** drop-down menu displays all the Lists being worked with. Choose the list you wish to work with. If the list is changed with unsaved edits, you will be prompted to save changes.

The **List Name** field contains the list name. Type in the field to rename an existing list, or name a new list that is being created.

The **Public List** checkbox indicates whether or not the list is public. Public lists can be viewed by all users and private lists are only visible by the list owner (user who created the list.) Check or uncheck this box to toggle lists to private or public (applicable user privileges apply). Note that if an **Unsaved changes: List has been modified** message appears, a list has been modified and not yet saved. Click the **Update List** or **Save as new List** buttons to save. Updating the list will save list modifications to the database. **Delete List** will delete the list from the database.

The **Criteria** section (top right) is where the name of a Directory, Site, Control System, Unit, Application Type, Application Instance, Point, or any combination to add all elements that match those names into the list. If a name is added without wildcard symbols (*, or _), the exact name must match.

To match a partial name, place an asterisk wildcard symbol at the beginning or end (or both) of the name match. For example, to add all points that are under Application Instances with a name beginning with GLOBAL, enter **GLOBAL*** in the **Application Instance** field and click **Add to List**. Multiple entries may be typed into one field by separating the multiple entries by commas. For example, if you wanted to add everything under sites, East, West and North, enter **East, West, North** into the **Site** field. This applies to all the fields.

An underscore character may also be used to match any character within a certain position in the phrase. Additionally, **Point Category** and its corresponding Active-Log setting may be used as part of the matching criteria by specifying a value in these drop-downs. Once all the criteria for matching is specified, click the **Add To List** button to add the criteria.

8.2.1.1. Bulk Site Name Report

A list of sites can be copied to the clipboard from an external text file (from Notepad for example, or Microsoft Word or Excel) and pasted into the criteria **Site** field. The site names should be one site name per line and/or comma delimited on a single line or multiple lines. The user can simply cut or copy the list of sites into the **Site** field. When the user clicks the **Add To List** button, the sites will be verified for matches simultaneously as the **Add To List** function is occurring, and any that don't match will be displayed at the top of the window for informational purposes so that the user can update their source list of sites if desired.

Click the **Remove All Items** button to clear all values from the list.

In the row of filter fields (first row across the top), type in a name under any field or any combination of fields for a partial match in order to filter the view of what is in the list. For example, entering an **O** in the **Point** box will filter all points that have an **O** somewhere within the name.

Click **Remove Filtered Items** to remove all filtered items from the list with one click. For example, when this button is clicked, all values shown with an **O** in the **Point** name would be removed from the list, resulting in a list with all points that do not contain an **O** in the name.

Click the **Clear Filter** button to clear all the filter fields.

Enable the check boxes to the left of each element to remove single elements from the list.

The number of filtered elements, the total number of elements in the list, and the current view range is displayed at the bottom of the page. The size of the list (**List Size**) is displayed at the top of the list.

Use the **Prev** and **Next** buttons to page through results. Choose the amount shown in the list with the **Page Size** drop-down.

If the window is closed with unsaved changes, a reminder window will give you the option to save.

9 Points

9.1. Overview

Application points are parameters that have been programmed inside a controller. Access to application points allows the user to view details about controller points, graph points, retrieve logs, and make changes. Points can be viewed in the navigation tree that are both logged and unlogged. Click the **Active Points** drop-down menu located in the center of the navigation window for point viewing options. Point logs are parameters inside the controller that have been graphed. Go to the *Display Log Graph* page to see a graphical view of the data.

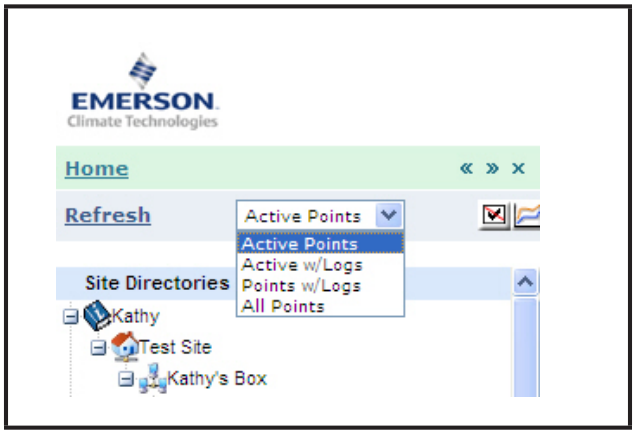


Figure 9-1 *- Active Points Drop-down Menu*

- **Active Points** is the default each time the user starts up the browser and will show all configured points in the controller.
- **Active w/ Logs** shows active points that have a controller log available.
- **Points w/ Logs** shows points that have a controller log available.
- **All Points** shows all possible points for an application instance, whether it is configured or not. An icon will appear next to the point if the point has a log.

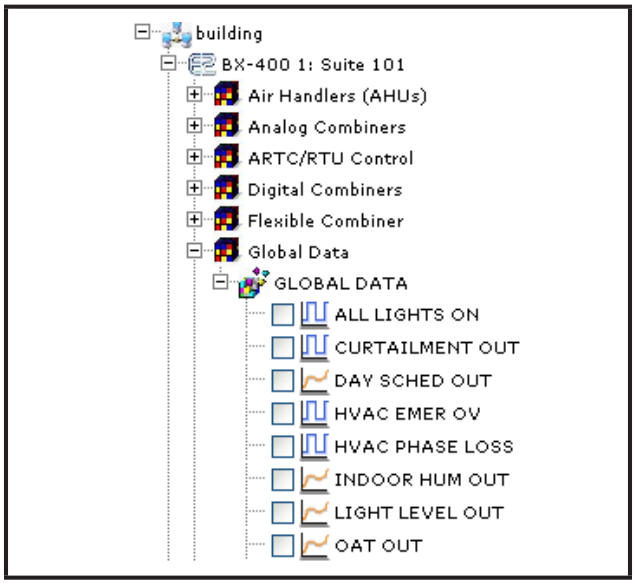


Figure 9-2 *- Logged Points*

Points are divided into three categories: Inputs, Outputs, and Parameters:

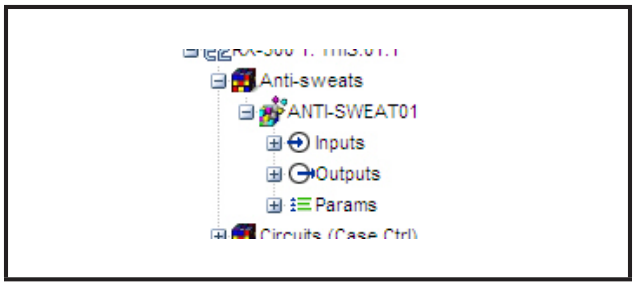


Figure 9-3 *- Point Categories*

Right-click menu for points:

From the navigation tree, right-click on a point to open that point's menu. You can go to **Point Properties**, **Display Log Graph**, and override from this menu.

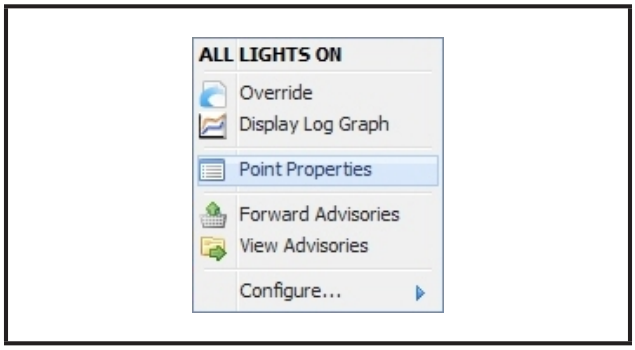


Figure 9-4 *- Point Right-click Menu from Navigation Tree*

Depending on the type of point, the override menu will be available when you right-click:

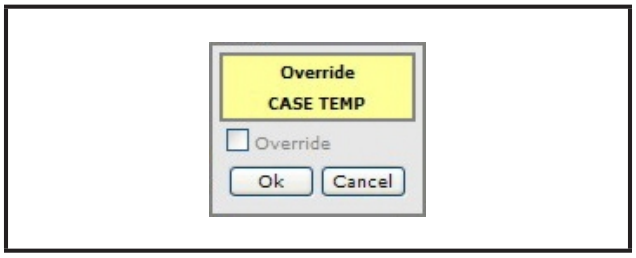


***Figure 9-5** - Override Menu*

Enable the **Override** checkbox in the first menu to open another menu that allows you to set specific parameters for that point:

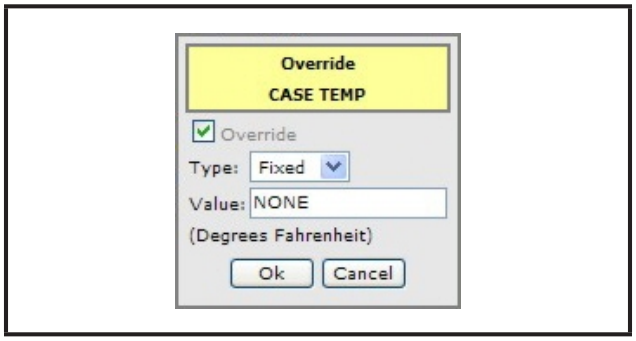


***Figure 9-6** - Enabling Override Checkbox*

To override, enable the **Override** checkbox and enter **Fixed** or **Timed** from the drop-down list. Enter a value of (**off, on, NONE**) so the value will override off or on. If **Timed** is selected, enter a time in the field that the value will override to. Click **OK** or **Cancel**.

Examples of different logged point icon types and their meanings are listed in ***Table 9-1***.

Point Icon	Meaning
	Point Analog Log icon indicates an analog point that may have logs in the E2 controller, but no logs retrieved in the database.
	Point Analog Log Database icon indicates an analog point that has logs retrieved in the database.
	Point Digital Log icon indicates a digital point that may have logs in the controller, but not retrieved in the database.
	Point Digital Log Database icon indicates a digital point that has logs retrieved in the database.
	Point System List Log icon indicates a system list point that may have logs in the controller, but not retrieved in the database.
	Point System List Log Database icon indicates a system list point that has logs retrieved in the database.

***Table 9-1** - Examples of Logged Point Icon Types*

9.2. Point Properties

Application points are parameters that have been programmed inside a controller. Access to application points allows the user to view details about controller points, graph points, and make changes. Points can be accessed from the navigation tree:

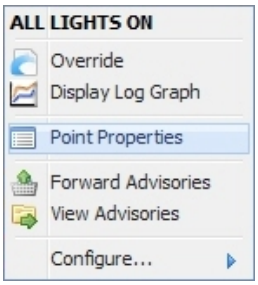


***Figure 9-7** - Point Properties Menu*

When **Point Properties** is clicked from the navigation tree, the P*oint Properties* page opens and will provide logging details about the point. To graph the point, click **Display Log Graph** (also available di-

rectly from the navigation menu as shown above). The **Actions** menu on the page will vary depending on the type of point selected.

Figure 9-8 *- Point Properties Action Menu*

- **Override** - Depending on the type of point, the override menu will be available in the right-click menu. To override, enable the Override checkbox and enter **Fixed** or **Timed** from the drop-down list. Enter a value of (**off**, **on**, **NONE**) so the value will override off or on. If Timed is selected, enter a time in the field that the value will override to. Click **OK** or **Cancel**.

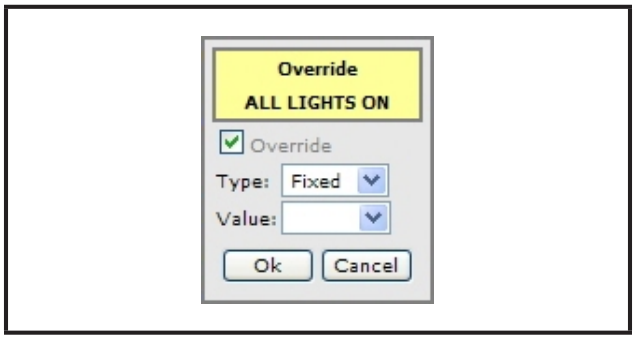


Figure 9-9 *- Example of Override*

- **Display Log Graph** - displays a graph of the logged point data.
- **Forward Advisories** - takes you to the *Forward Advisories* page where advisories can be forwarded to an e-mail address.
- **View Advisories** - takes you to the *Advisory View* page that displays the current advisories (alarms, fails, notices, warnings) from the database in high, medium, and low priorities, and gives you the ability to search advisories using various search criteria.
- **Configure Advisory Snooze** - takes you to the *Advisory Snooze Configuration* page. The Snooze alarm is a setting that assigns alarms a wait time that helps reduce the total amount of recurring advisories in the database. When the Snooze flag is ON in the database, advisories will be snoozed. You can set up a default snoozing period at the customer level, site level, or specific advisory level.
- **Configure Log Purge** - takes you to the *Configure Log Purge* page where you can set parameters for the Log Purge activity.

9.3. Watch or Graph Log Points

When viewing log data, select which points in the E2 controller you wish to log and press the graph icon located inside the navigation window, or right-click on a point in the navigation tree to bring up the **Display Log Graph** menu.

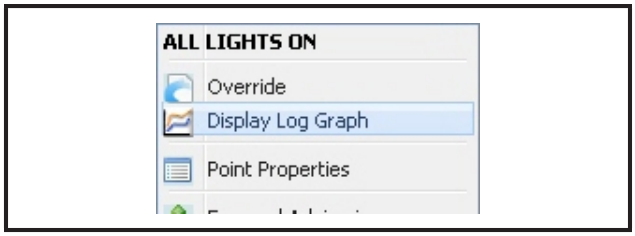


Figure 9-10 *- Display Log Graph Menu from Navigation Tree*

The *Watch Or Graph Log Points* window opens and shows the points you have checked and would like logged. Click the **Display Log Graph** button to show a graph of the data. Click **Retrieve Logs + Graph** to retrieve logs from the controller and show the graph in one step. Click **Retrieve Logs** to retrieve logs from the controller: the activity details progress page is launched and the directories that the logs are being retrieved from will be displayed.

Click **Retrieve Logs + Export** to retrieve a set period of logs from the controller and export the values into the file format of choice. Click **Export** to export only the data that is already in the database. Configure the **From** and **To** fields to specify the period of logs to retrieve prior to exporting the data. Set **Time Perspective** to **Site Time** or **My Time**, whichever is appropriate. For **File Type**, select the desired file format to use when exporting logs (**Comprehensive** saves the data as an .xls file, **Condensed** saves the data as a .csv file). Then click **Go**.

The **Remove All** button allows you to remove all points or specific points from the view. Percentages and digital values are displayed in separate graphs.

If you would like to create a list of points to watch (monitor point values in real-time), specify a name in the Save as new list field and click the **Save as new list** button. The list you just made can be seen in the **Load Selection from list** drop-down menu, is saved in the database, and can be recalled or deleted. Enable the **public list** checkbox to make the list visible to all users. Click the **Watch Points** button to see operation of point real-time values and the **Stop Watching** button to cancel. Click **List Power Builder** to open the List Power Builder window where you can manage your lists with a variety of Power Builder controls.

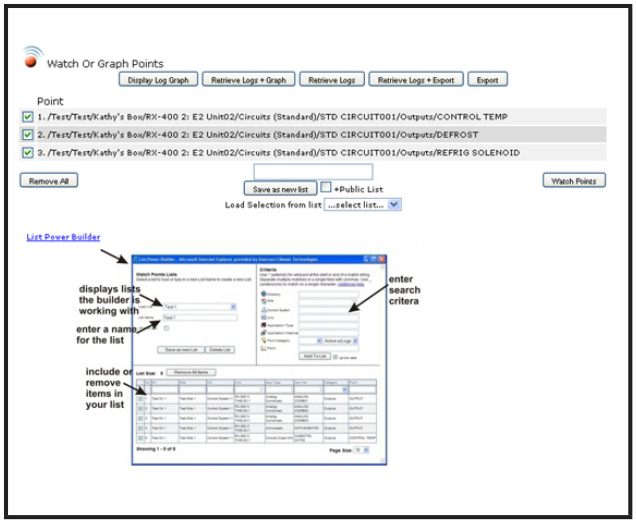

Watch Or Graph Points
Display Log Graph
Retrieve Logs + Graph
Retrieve Logs
Retrieve Logs + Export
Export
Point
1. /Test/Test/Kathy's Box/RX-400 2: E2 Unit02/Circuits (Standard)/STD CIRCUIT001/Outputs/CONTROL TEMP
2. /Test/Test/Kathy's Box/RX-400 2: E2 Unit02/Circuits (Standard)/STD CIRCUIT001/Outputs/DEFROST
3. /Test/Test/Kathy's Box/RX-400 2: E2 Unit02/Circuits (Standard)/STD CIRCUIT001/Outputs/REFRIG SOLENOID
Remove All
Watch Points
Save as new list
+Public List
Load Selection from list
...select list...
List Power Builder
displays lists the builder is working with
enter a name for the list
include or remove items in your list
enter search critera

Figure 9-11 *- Watch Or Graph Point Page*

9.3.1. Graph Log Points While Viewing a GS Screen

Using the **Graph Collection** menu, you can select points that have logs from any GS Screen, add them in a collection, and have them graphed. To include a point in the collection, while viewing a GS Screen (at RUN mode), right-click on an active point, hover the cursor over **Graph Collection**, and click **Add Point**. Up to 10 points can be selected and added to a collection. (The **Graph Collection** option will be disabled for points that are inactive).

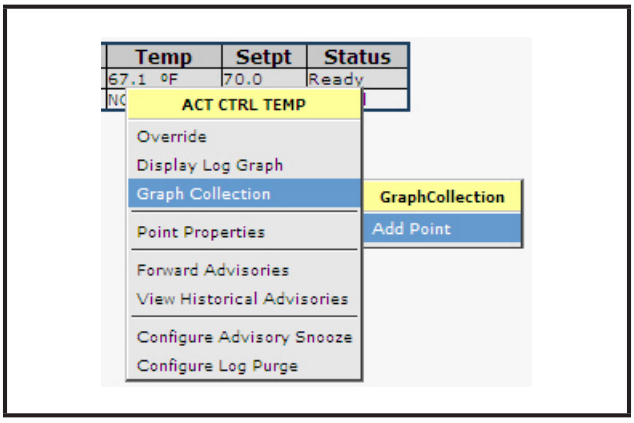


Figure 9-12 *- Graph Collection Menu*

When all the desired points have been added in the collection, click **Display Collection** from the **Graph Collection** menu. A new window will launch and display the graph of the points. Refer to **Section 9.4., *Display Log Graph*** for navigation of graphs.

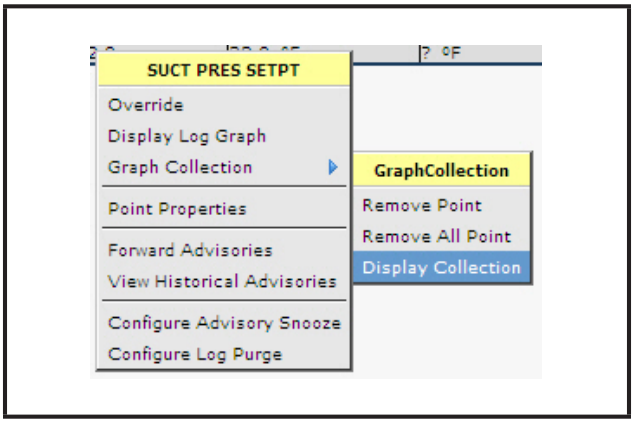


Figure 9-13 *- Display Collection*

To remove a point from the collection, click **Remove Point**. Click **Remove All Points** to delete the entire collection.

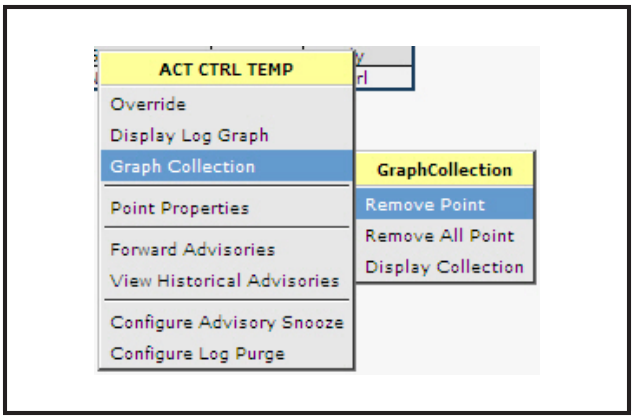


Figure 9-14 *- Display Collection*

NOTE: The graph will be blank if the point that was graphed has no record of logs in the database. To display the graph of the point, run the Retrieve Logs activity first and run another Display Log Graph.

Example of Graphed Digital Information:

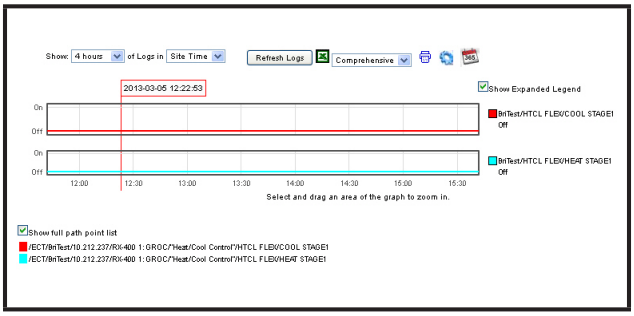


Figure 9-15 *- Example of Graphed Digital Information*

Note that disabled point names indicate points that only have logs and are unable to retrieve real time values.

9.4. Display Log Graph

Point logs are properties inside the controller that have been graphed. The *Display Log Graph* screen will open and show a graph view of the data.

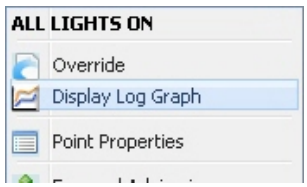


Figure 9-16 *- Display Log Graph Menu from Navigation Tree*

Once you have selected the points you wish to log and have clicked the **Display Log Graph** button, or clicked on the **Display Log Graph** menu from the point on the navigation tree, the logged points will be shown in a graph as shown in ***Figure 9-17***.

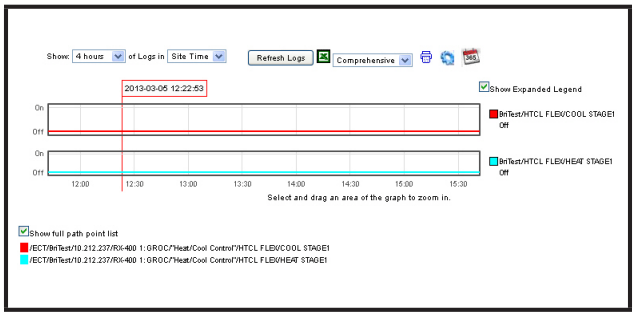


Figure 9-17 *- Example of Graphed Digital Information*

Points with the same Engineering Units are graphed in the same set of axes and the graph of each point is differentiated from another by the color and style used. (For point reference information, use the graph legend or enable the **Show full path point list** checkbox.)

If a chosen point has no log in the database for the time range specified, a double asterisk (**) will appear next to the point name and a message will display below the graph to indicate that the point does not have logs for that duration.

Additional points can be selected and added to the graph you are currently viewing. Select points from the navigation tree, GS Screen, or from a point's properties page and click **Display Log Graph** to add

points in the graph. The graph is refreshed and re-displayed showing the points previously selected plus the newly selected points.

If you would like to remove a point from the graph, click the Delete Point icon next to the point name to the right of the graph. The graph will be refreshed automatically and will re-display with the point removed.

Graphing Range

Set the time range of the data to show in the graph by configuring the **Show** drop-down list. The default is **4** hours (so 4 hours of logs in either **Site Time** or **My Time** will display) and is indicated along the bottom of the graph. If **Range** is chosen, start and end times can be entered into the **Start** and **End** fields and selected from the calendars next to them.

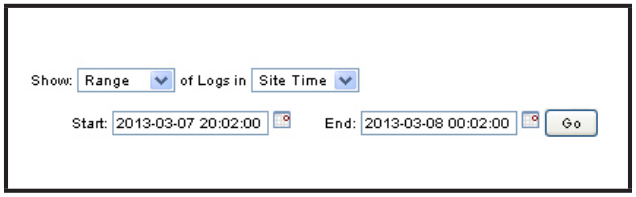


Figure 9-18 *- Graphing Range*

Save your chosen graph parameters or your custom date range as your default by clicking the **Save as your default log graph time duration icon**, so that each time the *Display Log Graph* screen is opened, these defaults will apply.

Site Time or My Time

The graph can be specified based on **Site Time** or **My Time**. Select the **Site Time** option to show log information for a date/time in the time zone associated with each particular site that has points you are displaying. For every site that has points to be displayed, those points are converted to that particular site's time zone. Select the **My Time** option to show log information for a date/time for the time zone as set in your Windows setup independent of any site's time zone.

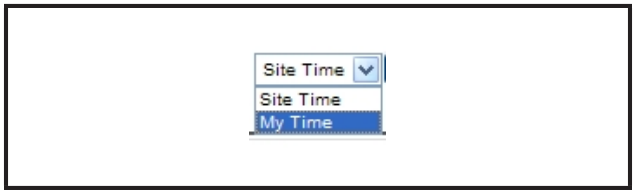


Figure 9-19 *- Site Time or My Time*

Date and time are indicated inside the red box on the cross hairs.

Left-click and drag on the graph to zoom in. Click once to zoom back out.

Mouse over the value(s) to the right of the graph to see reference information (site name, application, and point information) about that value. Unchecking the **Show Expanded Legend** checkbox will display the point name and value only. Click (enable) the **Show full path point list** checkbox to show the complete path name of graph points below the graph.

Line Colors and Styles

To configure the color and style of each line used in the graph, click the **Graph Options** icon. A pop-up window similar to the graphic in ***Figure 9-20*** will display. Set the desired color and style of lines from the drop-down lists and click **OK** to apply. Click **Cancel** to exit and return to the graph.

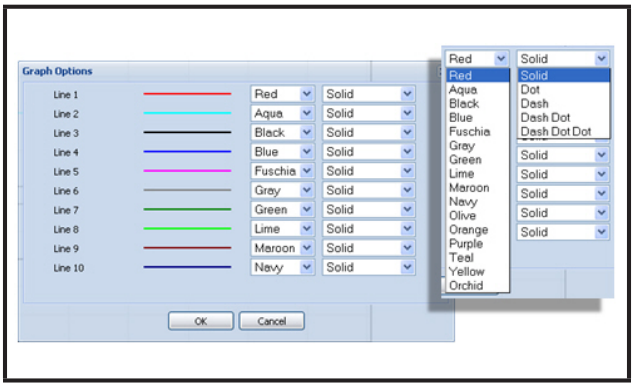


Figure 9-20 *- Graph Options - Customizing Line Colors and Styles*

Refreshing, Printing and Exporting Graphed Data

Click **Refresh Logs** to refresh the points that have been logged.

Click to download log data into a spreadsheet. Select **Comprehensive** to save the log data as .xls file or **Condensed** to save as .csv file.

To print the graph, click **Print Log Graph**. Reference information of points will show in the PDF output.

9.5. Show Points on Real-Time Graph

The **Show on Real-time Graph** menu allows you to watch a graph view of points in real time. To open the real-time graph of a point, on a GS Screen (RUN mode) or on the *Watch Or Graph Points* page, right-click on the point value and select Show on Real-time Graph. (The **Show on Real-time Graph** option appears only for digital and analog points.)

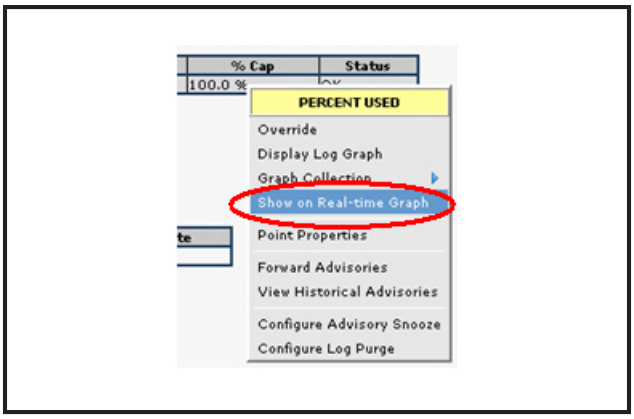


Figure 9-21 *- Show on Real-time Graph Widget Right-click Menu*

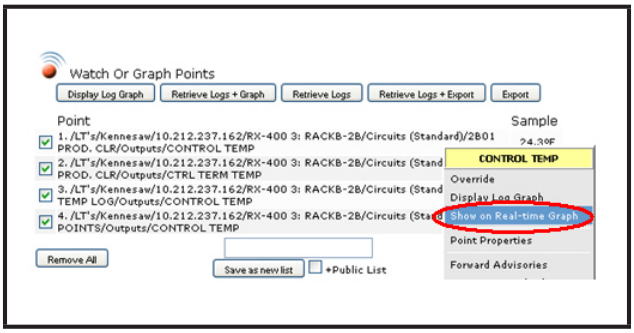


Figure 9-22 *- Show on Real-time Graph Menu From Watch or Graph Points Page*

The graph of the point selected displays on a separate window (*Real-time Graph*). *Note to enable your browser's pop-up option so the graph window displays properly.*

Example of a Real-time Graph:

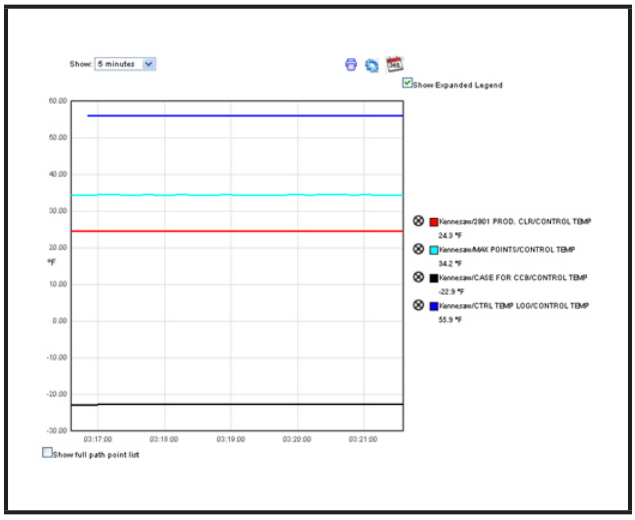


Figure 9-23 *- Example of a Real-time Graph*

Real-time values of points are plotted on the graph and are depicted by the lines that show from the right side of the graph. Scale values and the Engineering Unit are shown on the Y (vertical) axis, and the time on the X (horizontal) axis. Once the graph window is opened, the line of the point selected will start to show at the right side of the graph and will move to the left as time advances.

Up to 10 points can be selected and added onto the graph. To add a point on the graph, right-click the point from a GS Screen or the *Watch Or Graph Points* page and select **Show on Real-time Graph**. A message displays on the screen if you try to add a point in excess of 10 points.

To remove a point, locate the name of the point under the graph legend and click the delete icon next to it. The *Real-time Graph* window is refreshed automatically with all the points selected minus the point that was removed.

Point values with the same Engineering Units are graphed on the same axes otherwise the point value will display on another graph. Use the vertical scroll bar to scroll down the graph window to view more graphs underneath.

If any point being graphed gets disconnected, the graph of that point will show a gap to indicate that the point has no value for that duration. The gap will continue to draw with time as long as the point remains disconnected.

Inside the graph window:

The default time scale set for real-time graphs is **5** minutes (current time shown at the right end of the X axis). To change this value, choose an option from the **Show** drop-down list. Graphed data will be adjusted automatically to the new time scale.

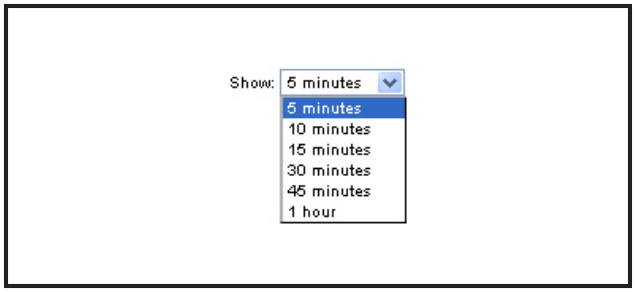


Figure 9-24 *- Chang*

Date and time are indicated inside the red box on the cross hairs.

To print the graph, click the print icon.

To configure the color and style of each line used in the graph, click the settings icon. A pop-up window similar to the following graphic will display. Set the color and style of lines from the drop-down lists and click **OK** to apply. Click **Cancel** to exit and return to the graph.

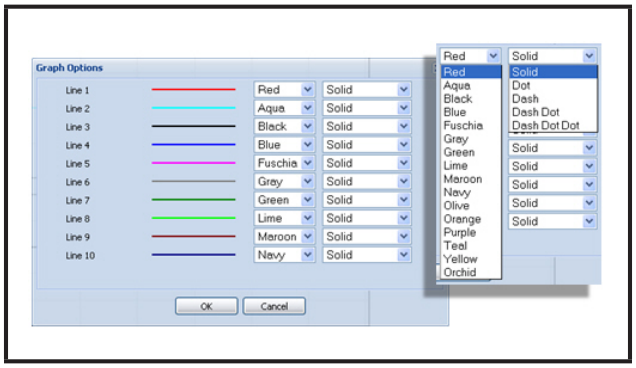


Figure 9-25 *- Configuring Line Graph Colors and Styles*

Save your chosen graph parameters as your default by clicking the calendar icon.

Mouse over the value(s) to the right of the graph to see reference information (site name, application, and point information) about that value. Unchecking the **Show Expanded Legend** checkbox will display the point name and value only.

Enable the **Show full path point list** checkbox to display the complete path name of points below the graph.

10 Graphical Status Screens/Floor Plans

10.1. Overview

A *Graphical Status Screen* is a customized floor plan that displays refrigeration and environmental control values on a single page with real-time values for multiple entities within the store. The information can be displayed using a variety of presentation models (widgets) that are available in the Widget Editor (for example, animation, text, and many illustrated instruments to choose from). Historically, a graphical status screen has been associated with a specific application type in E2 (such as a suction group, condenser, or circuit).

The GS Screen and Floorplan Creation Tool is an extended feature of Site Manager that can only be enabled upon feature activation and licensing (see **Section 3.1.3., *Licensing*** on how to activate this feature on your account.)

Users must have the necessary privileges to add, associate or import a GS Screen. GS screens can be kept private or published to the Navigation Tree for other users to access. When a GS screen is published, all Site Manager users will be able to view it. The context menu at every level in the Navigation Tree will allow you to view existing GS Screens or build new ones. For example, if you need a screen for a condenser, all screens must be created specific to their level. All GS pages that are associated with a certain node in the tree will be visible on that node's context menu.

To begin creating a floor plan, click **Graphical Status Screen Tasks** on the Navigation Tree and click **Add GS Screen** from the flyout menu. A blank GS screen opens with the **Add Widgets** menu.

Clicking the primary mouse button on the node will display the first GS Screen in the list. If no GS Screen is available, the Properties page will be displayed.

NOTE: Convenient, pre-set generic GS Screens are available for viewing controller values and are user-configurable. These GS Screens are included on the navigation tree menu and listed by name.

10.1.1. Generic GS Screens

Convenient, pre-set generic GS Screens are available for viewing controller values and are user-configurable. These GS Screens are included on the navigation tree menu and listed by name.

10.1.2. Show GS Screen Edit Tool Checkbox - My User Info Page

Necessary user privileges are required to add, associate or import a GS Screen. Based on the user authority of this particular feature in Site Manager, these screens will be available on each level of the tree. The **Show GS Screen Edit Tool** checkbox is enabled by default. If you do not wish to see the GS menu items on the context menu, un-check the **Show GS Screen Edit Tool** checkbox on the *My User Info* page and click **Save**.

Figure 10-1 *- Enabling GS Screen Edit Tool*

GS screens can be kept private or published to the Navigation Tree for other users to access. When a GS screen is published, all Site Manager users will be able to view it. The context menu will allow you to view existing GS Screens or build new ones at every level in the Navigation Tree.

For example, if you need a screen for a condenser, all screens must be created specific to their level. In other words, there will be nothing generic because all GS pages that are associated with a certain node in the tree will be visible on that node's context menu.

10.2. Quick Start

Once you have activated this feature, click **Add GS Screen** from the right-click menu on the Navigation Tree. A blank GS screen opens with the *Add Widgets* palette.

***Figure 10-2** - Graphical Status Screen Tasks Menu*

With select user privileges, the **GS Screens** drop-down menu is available on the blank GS page that opens after the **Add GS Screen** is clicked from the Navigation Menu where you can perform many useful GS Screen tasks. The **GS Screens** drop-down menu contains a list that consists of anything that pertains to graphical status screens such as viewing JSON source (click **View JSON Source** and a view-only window opens showing the source code for the GS Screen you have open), exporting, saving, working with the image library, deleting GS screens, disassociating a screen, and GS screen properties.

***Figure 10-3** - GS Screens Drop-down Menu*

10.2.1. Create GS Screens Quick Start

1. Click the desired widget(s) from the Add Widgets palette and it will appear on the blank GS Screen. You are automatically in Edit mode when you arrive at this screen.
2. Right-click on the widget for editing capabilities and properties (The Properties menu for widgets will differ depending on what type of widget you are working with. For example, text-based widgets will have more editing options for text formatting).
3. Click on **Properties** to open the Image Editor.
4. Add any desired points by selecting the point checkboxes in the navigation tree, then pressing **OK** on the **Properties** menu to save and view on-screen.
5. For a selection of images for the GS Screens, click on the Browse (...) icon and open the Image Library. Choose between system and user images and download to the image library by clicking **Use**. Different images have unique functionality depending on what the widget will be showing from the controller: ON/OFF states, different real-time values, and more. (The supported file types are .jpg, gif., and .png.)
6. To associate points with your GS Screen, choose the points from the Navigation Tree and they will automatically appear under the Point References heading at the bottom of the Image Editor.
7. Click **OK** at the bottom of the Properties window.
8. To save the GS screen, click the save icon (save indicator at the top right of your screen), or click **Save** from the **GS Screens** drop-down menu (on the tool bar at the top of the screen). A *Save GS Screen* window opens and will ask you to name your GS Screen. Enter a name for the GS Screen and click **OK**. Once you have saved the GS Screen, the save icon will disappear. Exporting and publishing the GS Screen can be done from the **GS Screens** drop-down menu.
9. After creating a GS Screen, toggle the button to **Run** mode to see the GS Screen become active and show real-time values.

10.2.2. Run and Edit Modes

Edit: If you are adding or creating a GS Screen, you are automatically in Edit mode when you first arrive at this page. The **Run** button indicates that you are in Edit mode. When the button reads Edit, you are in Run mode. Run mode shows the GS Screen operating in real-time. Toggle this button to go back and forth between modes. These buttons are displayed to the left of the **Logout** button along with a **GS Screens** drop-down menu. *Note that IE 7 and above and Firefox 1.5 are the supported browsers. (IE 6 is supported for viewing GS screens only.)*

Run: After a GS Screen has been created and you arrive at a saved GS Screen, you are automatically in Run mode. When in Run mode, right-click to bring up

the **Actions** menu. After creating a GS Screen, toggle the button to Run mode to see the GS Screen operate. If you wish to edit a saved GS Screen, toggle this button to Edit mode so that you can make changes.

10.2.3.Widgets and Images

The building blocks of GS Screens are the widgets used to create the GS Screens. When you click **Add GS Screen** from the Navigation Tree menu, you will be on a clear GS Screen with a widget menu. Different types of widgets can be added from this menu and then edited by right-clicking for the widget's **Properties** menu for more editing options. The Image Library is available from this menu for downloading and saving images for your GS Screen. See **Section 10.4.1., *Adding GS Screens*** for more information about building your GS Screen, and **Section 10.4.3., *Widget Editor*** topic for more information about working with widgets.

10.2.4.Setting a GS Screen as Your Home Page

Once on a GS Screen, click **Set As System Home Page** located off the **My Info** drop-down menu to set a GS Screen as your home page and overwrite any previously set GS Screen system home page. A confirmation window appears: click **OK** to set the GS Screen as your new system home page (no undo) or close this window. After a GS Screen has been set as a system home page, it may be disabled by unchecking the **Enable System Home Page** checkbox in the **My Info** drop-down menu under User Info.

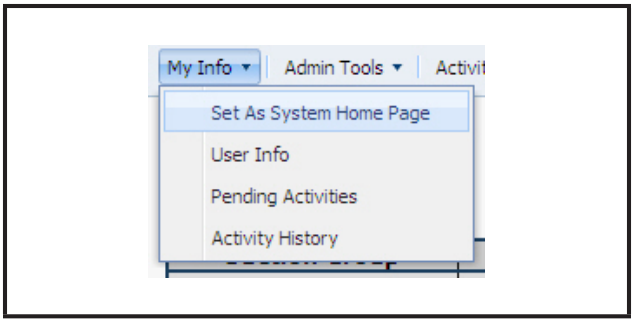


Figure 10-4 *- Setting a GS Screen as Your Home Page*

10.2.5.JSON Source Code

Figure 10-5 shows an example of a view-only JSON Source graphical status screen:

Figure 10-5 *- JSON Source Code Example*

10.2.6.Working With Widget Parameters

Text-based widgets can use replaceable parameters that are used to help generate the actual contents of the label when displayed within the widget. For more information on widget parameters, refer to **Section 10.4.4., *Widget Parameters - Customization***.

10.3. GS Screen Actions

10.3.1.Exporting the GS .ZIP

Exporting a GS screen sends the floor plan to another user for viewing *without* publishing it for all logged-in users to see. All GS Screens that are exported will be saved in .ZIP format. The .ZIP file will know which level of the tree it was created from automatically. Each GS screen will contain: the Site Manager version, GS screen schema, and the level in the tree the screen was created in. The .ZIP version has to be less than or equal to the Site Manager version and GS schema installed on the customer server in order for the screen to be imported.

1. Open a GS screen and click the **GS Screens** drop-down menu.

2. Click **Export Zip** from the **GS Screens** drop-down menu.

Figure 10-6 *- Export Zip Menu*

3. Name the GS Screen. Enter the name of the GS Screen you wish to export in the **Name** field and click **OK** to save. (If you are saving over an existing screen, the name of the screen will show in the **Name** field. Once you have saved the GS Screen, the save icon will disappear. The save icon is the save indicator at the top right of your screen.

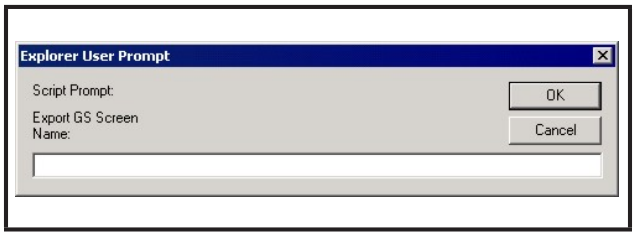


Figure 10-7 *- Exporting Zip*

4. Click **OK** to save the screen name and open the *File Download* window to save the .ZIP to a location on your computer. Saving a GS Screen will automatically associate the screen with the node of the tree the screen was created or selected from.

Figure 10-8 *- Saving GS Screen*

5. Click **Open** to open the file or click **Save** to save the GS screen to a specific location on your computer.

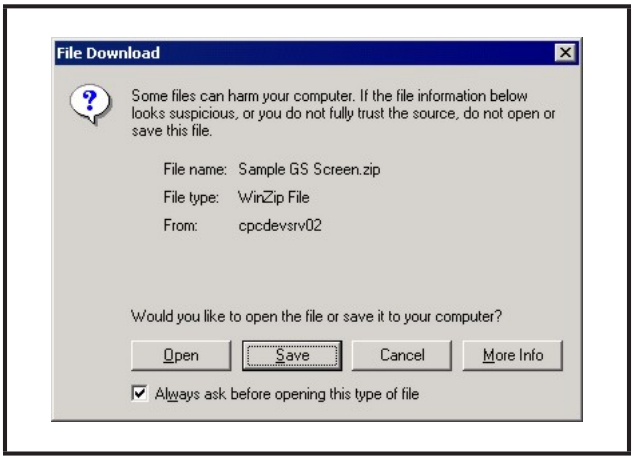

File Download
Some files can harm your computer. If the file information below looks suspicious, or you do not fully trust the source, do not open or save this file.
File name: Sample GS Screen.zip
File type: WinZip File
From: cpcdevsrv02
Would you like to open the file or save it to your computer?
Open
Save
Cancel
More Info
Always ask before opening this type of file

Figure 10-9 *- Download GS Screen File*

6. If you click **Save**, the "Save As" dialog will be displayed, allowing you to save and download the .ZIP anywhere on your computer. A *File Download* window will also open to show the progress of the download to the chosen location. After the download is complete, simply close the *File Download* window.

NOTE: If the .ZIP file does not include a version, schema and screen, imports will not be allowed. If the version does not allow for an import, the users may still use the .ZIP to create the screens manually by unzipping the file and using the parts.

10.3.2.Saving the GS

Once you have created a GS Screen, save by clicking **Save** from the **GS Screens** drop-down menu or click the save icon in the upper right-hand corner of the screen.

Figure 10-10 *- GS Screens Save Menu*

Name the GS Screen to save:

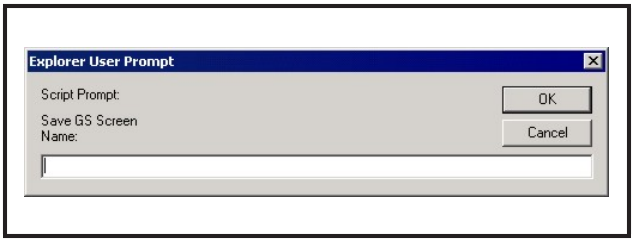


Figure 10-11 *- Name GS Screen to Save*

Enter a name for the GS Screen and click **OK**.

Once you have saved the GS Screen, the save icon will disappear. The save icon is at the top right of your screen.

Publishing/Exporting GS Screens

To publish the screen to a location on the Navigation tree, click **Export** from the drop-down menu. If you choose to Export first, the *Save* window will pop up to remind you to Save first.

10.3.3.Delete the GS

To remove a GS Screen from the system, (with select user privileges) click **Delete** from the **GS Screens** drop-down menu.

Figure 10-12 *- Delete GS Screen Menu*

A pop-up message will ask if you want to continue and delete the floor plan from the system permanently. Click **OK** to delete. Click **Cancel** to stop. If deleted, a confirmation message will appear to let you know that the GS Screen has been deleted from the system.

Microsoft Internet Explorer
Warning!
GS Screen 'GS Test Screen' may currently be used in other places. Do you want to continue?
OK
Cancel

Figure 10-13 *- GS Screen Confirmation Message Window*

10.3.4.Associating the GS Screen

GS Screens can be associated with more than one node or position on the Navigation tree. To associate a GS Screen to a particular node or position on the Navigation Tree, click **Associate GS Screen** from the Navigation Tree menu and a list of GS Screens (in .ZIP format) at the user-specified location will display.

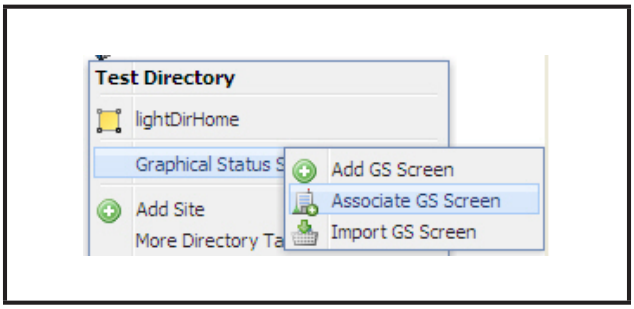


Figure 10-14 *- Associate GS Screen Menu from Navigation Tree*

The list is restricted to display only the appropriate level GS Screens. Only the GS Screens that have been published or GS Screens that were created by the logged-in user are included in the list. If no screens are listed, no screens have been created for the select-

ed Navigation Tree level node. Once a screen has been associated to a specific node on the tree, it will be removed from the list for that node.

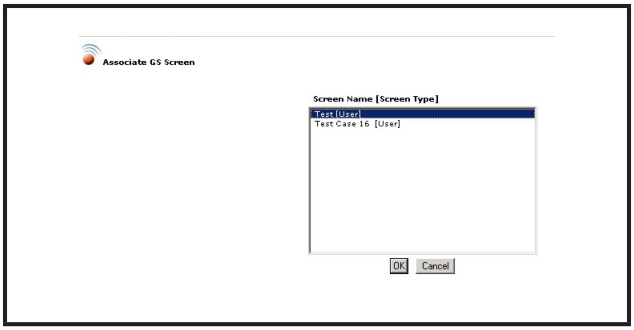


***Figure 10-15** - Associate GS Screen Page*

Select a GS Screen from the list and click **OK** to associate or **Cancel** to leave the screen.

NOTE: All GS Screens that are associated with a certain node in the tree will be visible on that node's context menu.

10.3.5.Disassociate the GS Screen

With administrator user privileges set, you can disassociate a GS Screen from the node on the Navigation tree it is associated with. Open the GS Screen you would like to disassociate with its current node. Make sure you are in Edit mode and that the **GS Screens** drop-down menu is available. Click **Disassociate** from the drop-down menu. The GS Screen will be disassociated from the current node and can then be associated with another node somewhere else on the tree.

***Figure 10-16** - GS Screen Disassociate Menu*

NOTE: To associate the GS Screen, access the right-click menu on the Navigation Tree and click Associate GS Screen.

10.3.6.Importing GS Screen (.ZIP)

Importing a GS screen allows you to view and work with a GS screen (that another user may have sent to you) before it is published in the system for all users to see. It will be visible on your Navigation Tree view, but not to other users. To import a GS Screen from its associated place on the Navigation Tree:

1. Click **Graphical Status Tasks** from the right-click Navigation Tree menu and click **Import GS Screen** on the flyout menu. The *Import GS Screen* window opens:

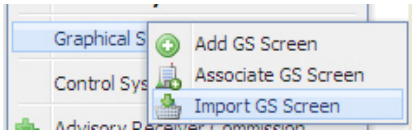


***Figure 10-17** - Import GS Screen Menu from Navigation Tree*

2. To find the GS screen you are looking for (.ZIP), enter the GS screen name or locate the file by clicking **Browse**. A *Choose File* window opens and the list of any GS screens in zip format (.ZIP) can be seen at the specified location on the computer.
3. Click **Save** and a message will appear above the screen name field indicating a successful import of the .ZIP has occurred.

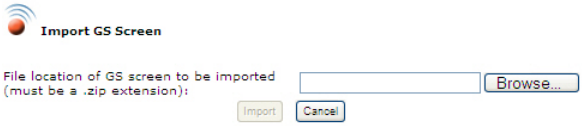


***Figure 10-18** - Importing GS Screen*

NOTE: The .ZIP file(s) must match the level (or "node") of the tree and the Site Manager software version it was created from in order to successfully import. A message will appear indicating a tree level mismatch if there is a discrepancy with the import.

After importing is complete, the new GS screen will be listed on the context menu for that node in the Navigation Tree, (which has been automatically associated for you).

To edit the GS screen, click the **Run** button to move to Edit mode where you can begin working with the floor plan. The **GS Screens** drop-down menu will appear where you can choose from editing tools such as deleting, disassociating, or publishing the GS screen and more.

10.3.6.1.Import Results

Existing GS Screens can be imported to different levels on the navigation tree. Once you have imported a GS Screen (.zip extension), the *Import Results* page will show the results of the GS Screen Import. Follow the instructions on the page to change the name of a GS Screen or to verify that the import has been completed successfully.

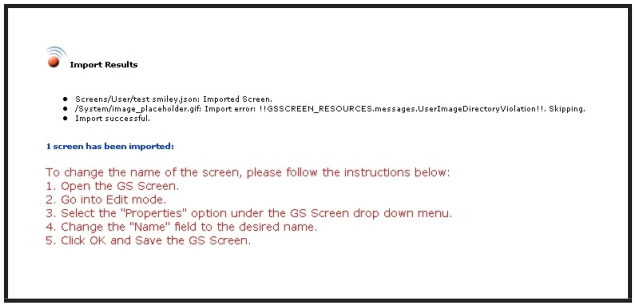

Import Results
Screens/User/test smiley.json: Imported Screen.
/System/image_placeholder.gif: Import error: !!GSSCREEN_RESOURCES.messages.UserImageDirectoryViolation!!. Skipping.
Import successful.
1 screen has been imported:
To change the name of the screen, please follow the instructions below:
1. Open the GS Screen.
2. Go into Edit mode.
3. Select the "Properties" option under the GS Screen drop down menu.
4. Change the "Name" field to the desired name.
5. Click OK and Save the GS Screen.

***Figure 10-19** - Import Results Page*

10.3.7.Properties of the GS

This GS Screens properties menu is located on the **GS Screens** drop-down menu on the mail tool bar. Selecting **Properties** from the **GS Screens** drop-down menu will open the *GS Screen Properties* window and display properties that belong to the GS Screen currently being viewed.

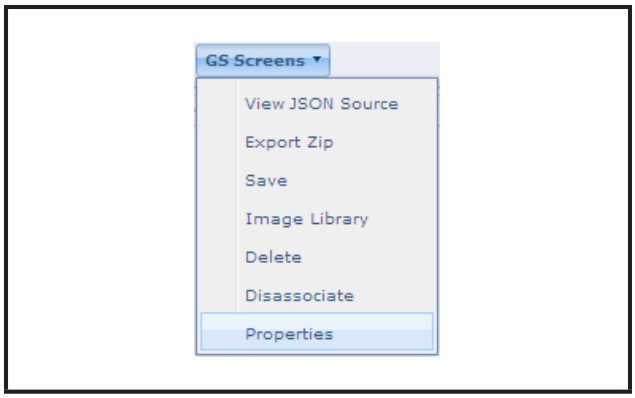


***Figure 10-20** - GS Screen Properties Menu*

The *GS Screen Properties* window opens with various editable fields. If the GS Screen is not published, only the author of the screen and users with administrator privileges will be able to view the screen:

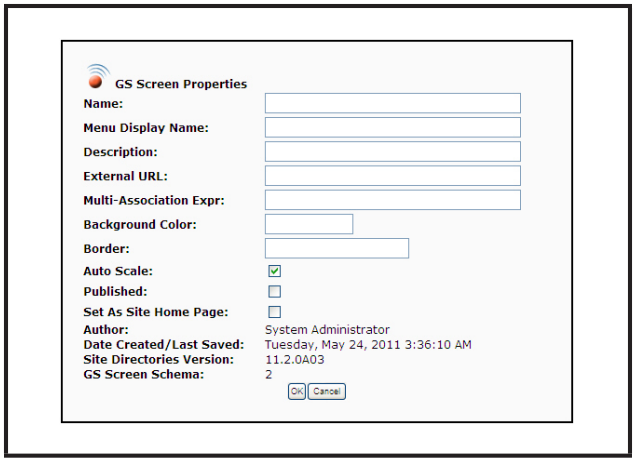


***Figure 10-21** - GS Screen Properties Window*

Properties:

- The **Name** given to the GS Screen is displayed.
- **Menu Display Name** is how the GS Screen name will appear when displayed on the menu.
- **Description** is a brief description of the GS Screen.
- **External URL** is the GS Screen URL for that can be used for referencing the GS Screen location externally.
- **Multi-Association Expr** is the Javascript expression that is evaluated by the tree in order to create a rule for associating a screen to multiple tree nodes or

locations.

- **Background Color**: Specify a color value to set the background color of the screen, defined like any other CSS color is defined (for example, blue, green, red, or #fabc09 can be entered).
- **Border**: Specify this property to add a border around the GS Screen. For example, entering "5px solid blue" would create a 5-pixel solid blue border (CSS style).
- With **Auto Scaling** enabled, the GS Screen automatically scales up to fit the size of the window.
- When this **Published** checkbox is checked, the GS Screen will be made public.
- **Set As Site Home Page** allows you to set the current GS Screen as your site's home page. This option is available on the *GS Screen Properties* window on all levels of the navigation tree, except at the directory level. When a GS Screen is set as a site home page for a specific node, the screen defaults as you click the node.

NOTE: This is different from your system home page. You can only have one system home page and have multiple site home pages (i.e., one site home page per site, control system, unit, application type, and application instance).

- Read-only field that shows the author of the GS Screen (the originator of the screen or who imported it).
- Read-only field that shows the date/time the GS Screen was created or last imported.
- Read-only field that shows the current Site Manager software version.
- **GS Screen Schema** indicates the version number of the GS Schema. This number changes whenever structural changes to the screen design changes.

Click **OK** to save, **Cancel** to quit and close the window.

10.4. Widgets and Creating GS Screens

10.4.1. Adding GS Screens

Based on user authority, Graphical Status (GS) Screens (Floor Plans) will be available on all levels of the Navigation Tree menu. When the **Show GS Screen Edit Tool** checkbox on the *My User Info* page is enabled, the GS Screen menus become available on the Navigation Tree.

GS Screens use a variety of presentation models (widgets) that are available in the Widget Editor (for example, label, animation, text, tables, and many illustrated instruments to choose from). Historically, a graphical status screen has been associated with a specific application type in E2 (suction group, condenser, or circuit).

GS Screens are user-defined and therefore give a detailed, customized view of your unique store layout. Right-click the Navigation Tree and click **Add GS Screen** on the flyout menu to begin:

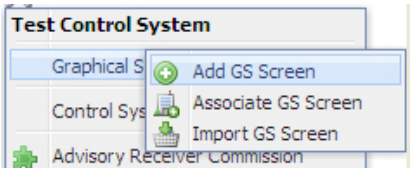


Figure 10-22 *- Add GS Screen Menu from Navigation Tree*

Selecting **Add GS Screen** will bring up the *Add Widgets* palette on a blank GS Screen, taking you directly into Edit mode where you can build a GS Screen from scratch:

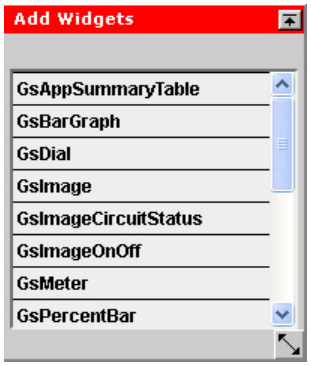


Figure 10-23 *- Add Widgets Palette*

To begin creating your GS Screen/floor plan, select the desired widget from the floating *Add Widgets* palette and right-click for editing and properties menus. The *Add Widgets* palette can be moved to anywhere on the screen.

10.4.1.1.Create GS Screens Quick Start

1. Enable the **GS Screens** menu by accessing the **My Info** drop-down menu and selecting **User Info**.
2. Enable the **Show GS Screen Edit Tool** checkbox on the *My User Info* page. Click **Save** at the bottom of this page. Then click the **Refresh** button in the navigation tree pane. This enables the **Graphical Status Screen Tasks** menu when you right-click a node in the navigation tree.
3. Right-click on the desired node in the tree, and choose **Add GS Screen**. *You are automatically in Edit mode.* For run mode, click the **Run** button in the top-right corner. Click the desired widget(s) from the *Add Widgets* palette and it will appear on the blank GS Screen. You are automatically in Edit mode when you arrive at this screen.
4. Right-click on the widget for editing capabilities and properties. (The **Properties** menu for widgets will vary depending on what type of widget you are working with. For example, text-based widgets will have different options for text formatting than table-based widgets.)
5. On the right-click menu, click **Properties** to open the Image Editor. The **Properties** menu options for widgets will vary depending on which type of widget you choose.

TIP: Give the widget a unique name in the Description field so you can easily find it in the drop-down list.

6. Add any desired points by selecting the point checkboxes in the navigation tree, then pressing **OK** on the Properties menu to save and view on-screen.
7. For a selection of images for the GS Screens, click on the browse (**...**) icon and open the image database. Choose between system and user images by clicking **Use This Image**. Right-click on images and **System** and **User** folders in the database tree for options such as adding images, uploading images, and more. Different images have unique functionality depending on what the widget will be showing from the controller: ON/OFF states, different real-time values, and more. (The supported file types are .jpg, gif., and .png.)
8. To associate points with your GS Screen, choose the points from the Navigation Tree and they will automatically appear under the **Point References** heading at the bottom of the Image Editor.
9. Click **OK** at the bottom of the *Properties* window.
10. To save the GS Screen, click the save icon (save indicator at the top right of your screen), or click **Save** from the **GS Screens** drop-down menu (on the tool bar at the top of the screen). A *Save GS Screen* window opens and will ask you to name your GS Screen. Enter a name for the GS Screen and click **OK**. Once you have saved the GS Screen, the save icon will disappear. Exporting and publishing the GS Screen can be done from the **GS Screens** drop-down menu.
11. After creating a GS Screen, toggle the button to **Run** mode to see the GS Screen become active and show real-time values.

10.4.1.2.The Add Widgets Palette

This palette offers a list of custom widgets that you can use to create your GS Screen. Begin building your GS Screen by selecting pre-existing widgets from the floating *Add Widgets* palette, or click **Image Library** from the **GS Screens** drop-down menu to open a list of more widget options located under user or system directories. You can also install your own widgets by loading them into the Site Manager server file system and create your own directories to store your widgets. (The supported file types are .jpg, gif., and .png.)

Once a widget has been placed on the GS Screen, right clicking on the widget will call up a property editor menu that allows you to edit each widget accordingly.

10.4.1.3.Creating a Text-Only Label Widget Quick Start

1. Right-click on a tree node and select **Add GS Screen**.
2. Click on the **GSText** widget to add to the screen.
3. Right-click on the widget and select **Properties**.
4. Add any desired points by selecting the point checkboxes in the navigation tree, then pressing **OK** on the **Properties** menu to save and view on-screen.
5. Tab to the **Label Text** field.
6. Type text in the field and click **OK.**
7. Click **Run** (you are currently in Edit mode) from the menu bar.
8. Verify the text you entered in the field is visible on screen.

10.4.1.4.Point References

Once a GS Screen has been created it can be associated with a point in the Navigation Tree. Use the **Point Reference** section to link a widget with a point by selecting the desired point in the navigation tree

(use the navigation tree checkboxes to select). The GS Screen will automatically reflect any points that have been previously selected under **Point References** and carry them over to additional widgets.

10.4.1.5.Visibility

GS Screen visibility is set so that unused parts of a graphic will not be visible to the user. For example, if the total number of compressors is 16 and you only need four of them to be seen, the visibility is set so only four are shown on the page. When points are refreshed, and **All Points** is set from the drop-down list at the top of the Navigation Window, only the active points will be visible.

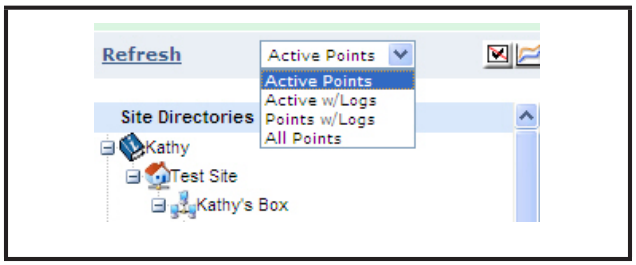


Figure 10-24 *- Point List Drop-down Menu*

10.4.1.6.Widget Properties

The widget context menu lets you change the layer positioning of the widget on the GS Screen, duplicate it (create additional copies of the widget on the page), delete the widget, or go to the Image Properties editor of the widget, which gives you further configuration options. Right-click on a widget to show the widget context menu (***Figure 10-25***).

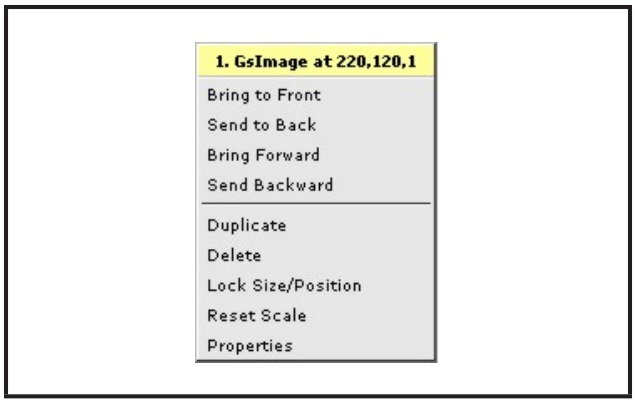


Figure 10-25 *- Widget Context Menu*

You can change the settings of each widget with these actions:

- **Bring to Front**: Brings the widget to the top, in front of all other widgets
- **Send to Back**: Brings the widget behind all other widgets
- **Bring Forward**: Brings the widget one layer down
- **Send Backward**: Brings the widget one layer up
- **Duplicate**: Creates a copy of the widget along with its properties
- **Delete**: Removes the widget from the screen. Selected widgets and grouped widgets can also be deleted by pressing the **Delete/Del** keys on your keyboard.
- **Lock Size/Position**: Saves and holds the most recently set size and position of the widget so it is locked out of clicking, dragging, and other changes. The widget selection handles turn purple to indicate the widget is locked. When the widget is in lock mode, this menu option will read *Unlock Size*/Position. Click **Unlock** to release the widget. (This option is also available as a checkbox on the **Image Properties** menu.)
- **Properties**: Displays the **GS Image Property** menu for more configuration options for each widget. The Properties menu options for widgets will vary depending on which type of widget you choose.
- **Reset Scale**: Click this option to return to the previously configured widget size
- **Convert to Sub-Screen** (if available): Zone widgets allow you to create a new GS screen based on a portion of another screen.
- **Duplicate and Rebase** (if available): Click this option to duplicate the widget. Just as the **Duplicate** option, but additionally the widget will enter a special mode where you can select a different Application Instance (or any node except a point node) to use as a new base for all the references in the widget.
  More on Duplicate and Rebase:
  Any previously selected widgets will be unselected and the new duplicated widget will selected (just the Duplicate action does not do this) and then the screen editor and main tree will go into a special mode where you must now select a new node from the main tree, to use as a base for all the references in the widget(s). The tree background will be highlighted yellow and a popup bubble will be shown with instructions and a **Cancel** link to exit this mode. Canceling will not remove the duplicated widget, but will cause the widget to have the same references based on where they were in the widget from which it was duplicated from.
  The tree will automatically synchronize to the application instance of the first reference of the widget being duplicated when first entering this mode (because in most cases the designer would probably want to select the next application instance in se-

quence after it.) You may continue to edit widgets in any way while in this special mode, and even select other widgets. Once clicking on a node in the tree, all selected widgets will be "rebased" to that node. Group widgets that are selected will also have all their sub-widgets rebased in this way. Undo by pressing **Ctrl+Z** just like any other editing action can be undone.

- **Convert to Crop Image** (if available): These special cropped GSImage widgets (that can be created this way) can be converted to normal widgets by selecting **Convert Crop to Image**.

NOTE: Internet Explorer 7 and above and Firefox 1.5 are the supported browsers. (IE 6 is supported for viewing GS screens only.)

10.4.1.7.More Widget Editing

- **Selecting Multiple Widgets**: Multiple widgets can be selected by using the mouse to click and drag to enclose widgets within a selection rectangle, or by pressing the **Shift** key while clicking desired widgets. After you have selected multiple widgets, they can be grouped using the right-click menu option.
- **Deselecting**: To deselect widgets, click the area outside the widget(s).
- **Spacing**: If three or more widgets are selected, they can be horizontally and vertically spaced with the **Space Selected** option on the widget right-click menu. This feature equalizes uneven spaces between widgets. Press **Ctrl+Z** to go back one step.
- **Resizing/Scaling**: All widget types can be resized by clicking on the widget and using the red selection handles that appear on the edges. Drag the edges to resize and the entire image will scale. Note that real-time indication of x,y position is shown automatically when moving widgets. (Reminder: Click **Reset Scale** return to the last saved widget size.)
- **Alignment**: Before grouping widgets, you can fine-tune the widgets' placement right by selecting **Align Selected** on the widget's right-click menu. Widgets move in one-pixel increments.
  - **Left**: aligns selected widgets to the left
  - **Right**: aligns selected widgets to the right
  - **Top**: aligns the top of the widgets equal (flush) with each other
  - **Bottom**: aligns the bottom of the widgets equal (flush) with each other
  - **Horiz. Center**: centers the widgets equally horizontal depending on the starting position of the widgets. For example, if the widgets are vertical to each other to begin, one will be placed on top of the other, hiding the widget. To undo, click the area outside of the widgets.
  - **Vert. Center**: stacks the widgets equally vertical (one above the other) depending on the starting position of the widgets. For example, if enough space separates the widgets to begin, they will be stacked one directly above the other. Widgets will overlap if there is a negligible amount of space separating them before vertically centering occurs. To undo, click the area outside of the widgets.
- **Grouping**: After selecting the widgets to be grouped, click the **Group Selected** option on the widget right-click menu. The selected widgets are now grouped together and will allow you to move them as a whole. Red boxes will appear around the grouped widgets as a whole and disappear from around individual widgets. To undo, choose from two options that appear on the widget right-click menu:
  - **Ungroup This**: Ungroups a single widget within the group. Place the cursor on the widget you wish to ungroup and select **Ungroup This**. To finish separating, click off the widget and then reselect it to move. Red boxes will reappear at the corners of the widget to indicate it has been ungrouped.
  - **Ungroup Group**: Ungroups all widgets within a group. Red boxes will reappear at the corners of individual widgets.
- **Duplicating**: Right-click the widget you wish to duplicate and select **Duplicate** from the menu. Finish by clicking outside the newly created widget to deselect from the first widget. If this option is chosen on grouped widgets, the entire group will be duplicated.
- **Deleting**: After multiple widgets have been selected (two or more), they can be deleted by clicking **Delete Selected**. This will remove all selected widgets from the screen.

10.4.1.8.GS Image Property Editor

The **Common Properties** section contains properties that vary depending on the type of widget you are working with. The options in **Specific Properties** menu will also vary depending on the type of widget you are editing. Text, labeling, color, and opacity options are examples of some of the choices you may see for **Specific Properties**. For regular graphics, you have the option of adding your own images to the system, or customizing images that are already in the sys-

tem. Once you save them to the desired destination on your computer, they are then referred to as "user images."

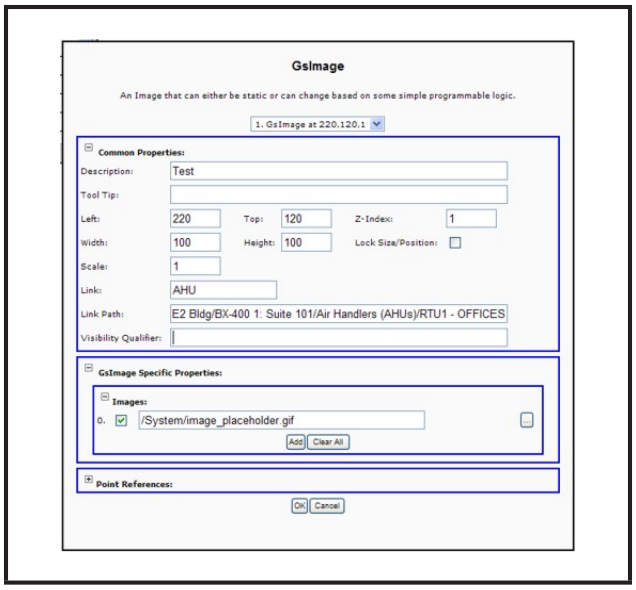


***Figure 10-26** - GsImage Property Editor*

10.4.1.9.Common Properties

The Common Properties section applies to all types of widgets. The name of the GS Image you are editing, description, alignment, and link information.

- **Description**: Short, descriptive information or name of the widget. (Once you name the image and click **OK**, it becomes a *user* image.)

TIP: Give the widget a unique name in the this field so you can easily find it in the drop-down list.

- **Tool Tip**: The text you enter in this field will appear when you mouse over the widget. Information about particular points associated with the widget, widget name, etc, can be entered in this field. If no text is entered, the regular menu will be available.
- **Left**: The number of pixels the widget is from the left.
- **Top**: The number of pixels the widget is from the top.
- **Z-Index**: Reflects the stacking order of positioned widgets.

TIP: Set the Index number for a background image to 0 (zero) and any image that will appear on top of the background image to a number greater than 0 (zero) so the correct stacking order will occur.

- **Width**: The width of the widget in pixels.
- **Height**: The height of the widget in pixels.
- **Lock Size/Position checkbox**: If enabled, values entered in the image size and position properties fields will be locked. Any more changes made to these properties will not apply as long as the checkbox is enabled. To unlock and disable, click to remove check.
- **Visibility Qualifier**: an optional expression that, when true, will make the widget or group visible, and when false, will make the widget or group invisible. Refer to **Section 10.4.4., *Widget Parameters - Customization*** for information on widget parameters for this visibility expression.

Linking GS Screens: If you link from one widget to another GS Screen, enter the link path and link screen (simply the actual name of the GS Screen). For example, add a push-button widget (GsPushButton) that will allow you to jump to another GS Screen. For the push-button widget on its **Properties** menu, enter the name of the GS Screen you wish to link to in the **Link** field.

Reverse-direction linking: To link a GS screen in the reverse direction (backwards) from where you are on the tree, enter **../** in the **Link Path** field for each node of the tree you are going up, including the node you start from. Then add the name of the last tree node the GS Screen will be linked to. For example, if you begin at the Unit level in the tree and the GS screen is to be linked at the Site level:

- Site - Test Site 1 (your ending point)
- CS - Control System 1
- Unit - Controller 1 (your starting point)

You would enter **../../../Test Site 1** in the **Link Path** field.

- **Link**: If the GS screen you wish to add to is named "AHU", type the text "AHU" into this field. Note that a URL address can also be entered into this field. When in Run mode, click that widget to go to the link you entered. Be sure to include "http://" or

"https://" in the URL address.

- **Link Path**: The link path is *how* to get to the node of the tree you want to go to *from where you are now*. If the **Link Path** field is blank, it is assumed that the screen will be loaded at the same Tree node where the current screen has been loaded. This can be done by entering a "relative" path (preferred) or an "absolute" path. Using the graphic in ***Figure 10-26*** as an example, the fields would be populated with the "relative" path information below when linking the push-button widget to the AHU GS Screen:

Links: **AHU**

Link Path: **ABC Bldg/ABC E2 Bldg/BX-400 1: Suite 101/Air Handlers (AHUs)/RTU1 - OFFICES**

NOTE: If a forward slash appears as part of the name of the link path, it must be enclosed inside quotation marks. For example, if the path is BX-400 1: Suite/101, the unit name would be: "BX-400 1: Suite/101" and quotation marks would be needed around the text that contains the forward slash.

10.4.1.10.Widget Screen Linking

Unique parameters that can be specified as the **Link** on any widget:

- **${home}** when this link is clicked on the widget, it causes you to leave the current screen and go to the GS screen home page (if defined). If no home page is defined, or if you are already on the home pages, a pop-up error message will appear.
- **${back}** when this link is clicked on the widget, it causes you to leave the current screen and go back a page (just like the browser back button).
- **${forward}** when this link is clicked on the widget, it causes you to leave the current screen and go forward a page (just like the browser forward button).
- **${graph}** when this link is clicked on the widget, the associated points will be graphed that opens in a separate window. If no points have been associated, an "Invalid Reference" message will appear.
  - **${graph,N...}** will graph a different point (where **N** is a reference number for a valid reference in the widget). For example, **${graph,1}** will graph the point specified by reference 1. You can include multiple references in the graph by separating them with commas; for example, **${graph,0,1,2}** will graph the points specified by references 0, 1, and 2 on the popup graph.
  - **${graph}ScreenName** optionally, you may follow the **${graph}** link with the name of a screen to show as part of the graph. For example, **${graph,1,2}GraphSubScreen** would pop up the log graph for the points specified by references 1 and 2, and also load the GS Screen named **GraphSubScreen** as part of the popup graph. The GS screen used in the popup graph must be specially designed for this purpose.
  - **${graph, 1, ...N}GsscreenName|24** sets a default time period for the pop-up graph (where **|24** is the number of hours that can range from 1 to 4320). For example, **${graph,1,2}GraphSubScreen|8** will pop up a log graph for points specified by references 1 and 2 within the last **8 hours** and also load the GS Screen named GraphSubScreen as part of the pop-up graph.
- **${tree}** applied by default to the screen link path when a GS screen is created, this link parameter causes the navigation tree to synchronize automatically to the location where the GS screen is loaded. By simply clicking on the widget, you can see exactly where in the tree the GS screen is loaded.
- **${0.siteID}** this is the ID of the site this point is in.
- **${0.controlsystemID}** this is the ID of the control system this point is in.
- **${0.unitID}** this is the ID of the unit this point is in.
- **${businessAction}businessActionName** creates a link from the current GS Screen to a business action UI screen (where **businessActionName** is the exact business action name that is defined in the businessActionDescriptor.xml file). By clicking the widget, the page will load the business action screen.

Please note that if any of these options are used, they should be used exclusively in the link (without any other replaceable parameters) and are not valid in any other place where replaceable parameters can be used and are only valid on a widget screen link.

NOTE: Link and Link Path support replaceable parameters so that a screen name or link path for that screen may be computed by using any of the reference information, although style information such as color will not be shown.

- **Point Reference**: To link a widget with a point, use the Navigation Tree checkboxes to select the point.

NOTE: The recommended way to associate points with a widget is to first select the point you wish to associate, then add any text.

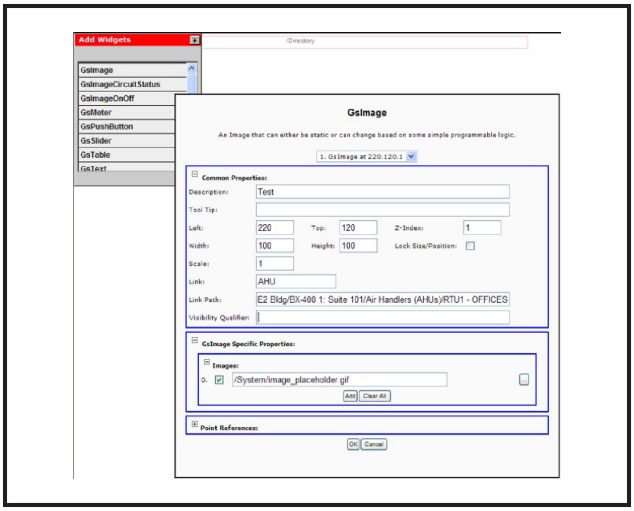


Figure 10-27 *- GsImage Property Editor Screen*

For text widgets, some of the text features you will see on-screen are listed in the **Text Feature** column. The options you can enter manually are listed in the **Options** column (***Table 10-1***).

Text Feature	Options
Text Alignment	center, left, right
Font Size	enter a numeric value for the font size or xx-small, x-small, small, medium, large, x-large, xx-large
Font Family	times, courier, arial
Font Variant	normal, small caps
Font Style	italic, normal, oblique
Font Weight	normal, bold, bolder, lighter, or enter a numeric value from 100 - 900 (normal = 100, bold = 700)

Table 10-1 *- Widget Text Features*

NOTE: The rules for cascading style sheets (CSS) apply for these text fields. For further information on CSS formats, refer to these sites: http://www.javascriptkit.com/dhtmltutors/css5.shtml and/or http://www.htmlhelp.com/reference/css/properties.html

Linking a GS Screen to Other Feature/Function Screens

Aside from linking a GS Screen to an external URL or to another GS, a GS Screen can be linked to a feature or function within Site Manager by configuring the **Link** field from the GS Properties Screen.

NOTE: If a user does not have privileges to view or access a feature or a function that is being linked by the widget, the target screen will not load.

To create a GS link, right-click on a node of the tree to show the tree level menu, hover the cursor over **Graphical Status Screen Tasks** menu and click **Add GS Screen**, or modify an existing GS Screen by clicking **Edit** while viewing an active GS Screen. The *Add Widgets* palette tool will show:

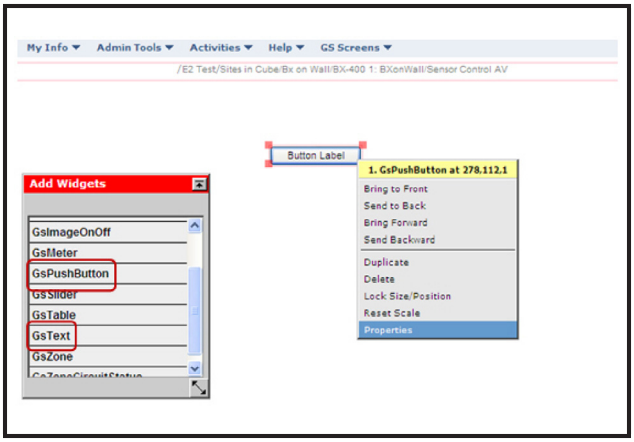


Figure 10-28 *- Add Widget*

From the widget palette, select and right-click the desired widget to show the widget context menu and then click **Properties** to open the *GS Properties* page.

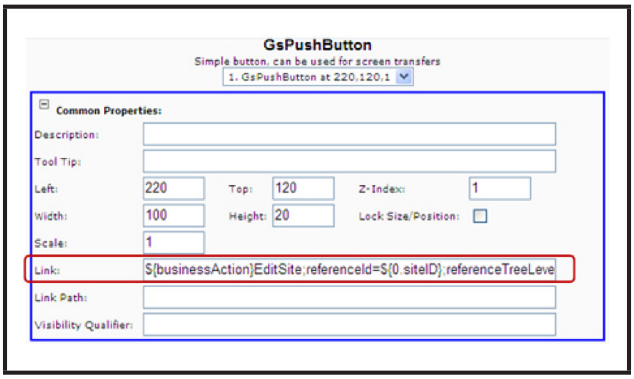


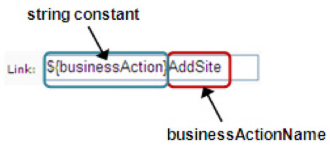
Figure 10-29 *- Add Business Link*

To link a widget to a Site Manager feature or function, enter a business action parameter in the **Link** field under the Common Properties section. Use the input format below:

```
${businessAction}businessActionName;paramName=paramValue
```

- **${businessAction}**: a string constant. Enter this string in the **Link** field followed by the business action name of the feature or function.
- **businessActionName**: the string name of the feature or function as listed in the "businessActionDescriptor.xml" file (the Site Manager feature or function the GS will be linked to). For example, the business action name for configuring a site is *EditSite*. Refer to ***Table 10-2*** for a list of function and feature examples (business action names and parameters). Type the business action name at the end of the string constant.

For example:



Set a parameter name and a parameter value to features and functions that require a parameter. Type = (equal sign) in between parameter names and values and a semi-colon (**;**) in between parameters, if more than one parameter is needed.

- **paramName**: the string name of the parameter being looked up. Refer to ***Table 10-2*** for the list of parameters for a given feature or function.
- **paramValue**: the value of the parameter being referenced.

NOTE: The required parameters should be entered in the Link field or an error message will display. Parameters can be entered in any order as long as the parameter names and values provided are valid.

In the widget's Specific Properties section, enter a widget label (or name) that you wish to appear on the screen. Click **OK** to save or **Cancel** to exit the widget properties screen.

Select a point from the navigation tree to use as the point reference by clicking the point checkbox. (Selecting a point reference enables Site Manager to identify which tree level the feature or function will be called from and/or applied after saving.) The point reference selected will appear under the Point References section.

Once you are done editing, click the save icon or the **Save** option from the **GS Screens** drop-down to save the GS. Click **Run** at the upper right-hand corner of the screen (or click the name of the GS from the navigation tree) to run the screen.

Feature/ Function Screens	businessActionName	Required Link Parameters
Edit Site	EditSite	${businessAction}EditSite;referenceId=${0.siteID};referenceTreeLevel=1;referenceName=${0.siteName}
Add Control System	AddControlSystem	${businessAction}AddControlSystem;referenceId=${0.siteID};referenceTreeLevel=1;referenceName=${0.siteName}
Edit Control System	EditControlSystem	${businessAction}EditControlSystem;referenceId=${0.controlsystemID};referenceTreeLevel=1;referenceName=${0.csName}
Forward Advisory	FORWARD_ADVISORY	${businessAction}FORWARD_ADVISORY;referenceId=${0.siteID};referenceTreeLevel=1;referenceName=${0.siteName}
View Historical Advisory	VIEW_ADVISORY	${businessAction}VIEW_ADVISORY;referenceId=${0.siteID};referenceTreeLevel=1;referenceName=${0.siteName}
Advisory Receiver Commission	MonitorCommissioningRFDActivity	${businessAction}MonitorCommissioningRFDActivity;referenceId=${0.controlsystemID};referenceTreeLevel=2;referenceName=${0.csName}
Live Advisory View	GetLiveAdvisoriesCSLevelActivity	${businessAction}GetLiveAdvisoriesCSLevelActivity;referenceId=${0.controlsystemID};referenceTreeLevel=2;referenceName=${0.csName}
Live Advisory View	GetLiveAdvisoriesUnitLevelActivity	${businessAction}GetLiveAdvisoriesUnitLevelActivity;referenceId=${0.unitID};referenceTreeLevel=3;referenceName=${0.unitName}
Backup Site	BackupSiteActivity	${businessAction}BackupSiteActivity;referenceId=${0.siteID};referenceTreeLevel=1;referenceName=${0.siteName}
Obtain Controller Information	SyncControllerDirSite	${businessAction}SyncControllerDirSite;referenceId=${0.siteID};referenceTreeLevel=1;referenceName=${0.siteName}
Retrieve Logs Site Level	GetPointLogsSiteLevel	${businessAction}GetPointLogsSiteLevel;referenceId=${0.siteID};referenceTreeLevel=1;referenceName=${0.siteName}
Backup Control System	BackupCtrlSystemActivity	${businessAction}BackupCtrlSystemActivity;referenceId=${0.controlsystemID};referenceTreeLevel=2;referenceName=${0.csName}
Obtain Controller Information	ControlSystemInventory	${businessAction}ControlSystemSynchronize;referenceId=${0.controlsystemID};referenceTreeLevel=2;referenceName=${0.csName}
Refresh Units	ControlSystemInventory	${businessAction}ControlSystemInventory;referenceId=${0.controlsystemID};referenceTreeLevel=2;referenceName=${0.csName}
Retrieve Logs CS Level	GetPointLogsCSLevel	${businessAction}GetPointLogsCSLevel;referenceId=${0.controlsystemID};referenceTreeLevel=2;referenceName=${0.csName}
Backup Unit	BackupUnitActivity	${businessAction}BackupUnitActivity;referenceId=${0.unitID};referenceTreeLevel=3;referenceName=${0.unitName}
Obtain Controller Information	UnitSynchronize	${businessAction}UnitSynchronize;referenceId=${0.unitID};referenceTreeLevel=3;referenceName=${0.unitName}
Refresh Application	UnitInventory	${businessAction}UnitInventory;referenceId=${0.unitID};referenceTreeLevel=3;referenceName=${0.unitName}
Retrieve Logs Unit Level	GetPointLogsUnitLevel	${businessAction}GetPointLogsUnitLevel;referenceId=${0.unitID};referenceTreeLevel=3;referenceName=${0.unitName}
Terminal Mode	InitialTerminalMode	${businessAction}InitialTerminalMode;referenceId=${0.unitID};referenceTreeLevel=3;referenceName=${0.unitName}

***Table 10-2** - Business Action Screen Links*

10.4.1.11.Image Library

From the Widget Properties menu (right-click a widget), click the browse button to open the Image database\library to begin using images.

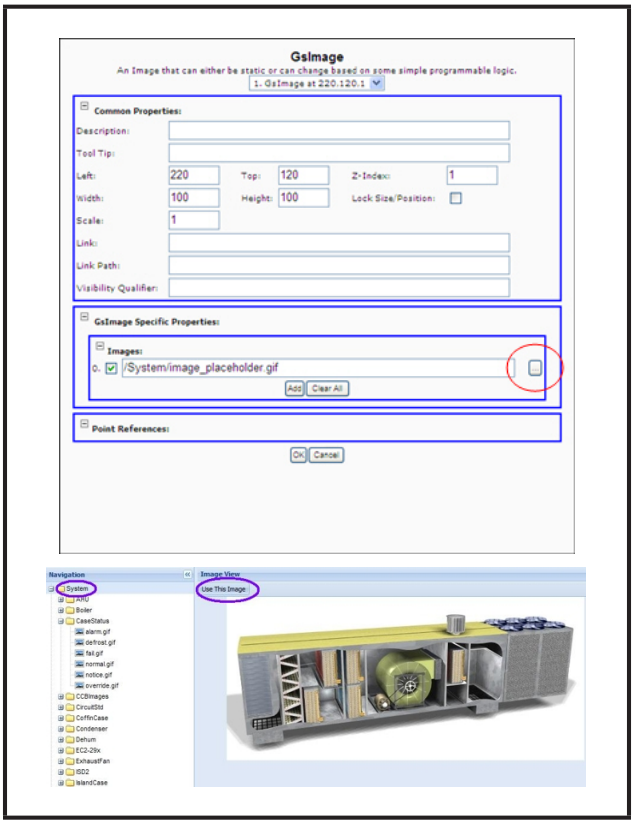


Figure 10-30 *- Image Library*

Use the image database\library to add images to your widgets. Choose images from **System** and **User** directories on the **Navigation** side and create your own directories to store the user images you create. Use and edit images from the image database by selecting the image from the tree, and clicking **Use This Image**.

Each widget has its own unique functionality depending on how you want the widget to behave and what points the GS Screen will be connected to. For example, ON/OFF states, defrost overrides, values (text widgets), analog and digital states.

System and User Images: There are two types of images in the database: pre-set *system* images and *user* images the user imports by right-clicking on the **User** folder. All are listed in alphabetical order. *User* images are images created, modified, and/or uploaded by the user and may also be deleted from the database by the user. User images can be found in folders created by users, or in the **User** folder. *System* images may not be changed or deleted from the database because are pre-set in the system.

System Images Folder - Right-Click Menu:

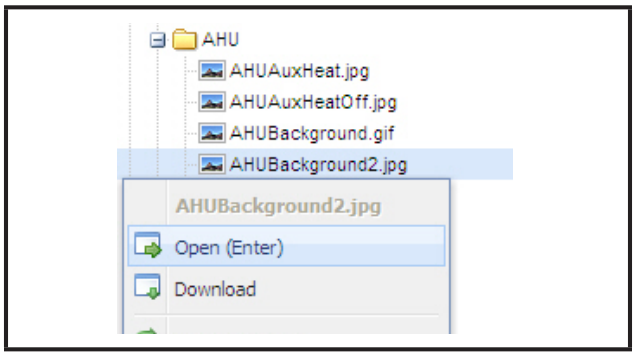


Figure 10-31 *- System Images Folder - Right-Click Menu*

- Click **Open (Enter)** to open the system image in a separate window.
- Click **Download** to save the system image to a location on your drive, or open the image in a separate window.

User Images Folder - Right-Click Menu:

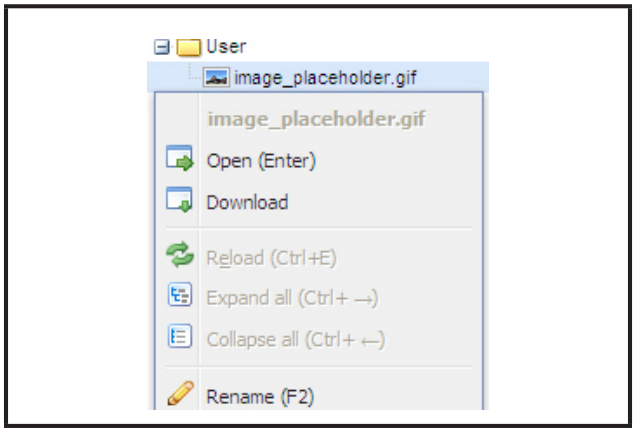


Figure 10-32 *- System Images Folder - Right-Click Menu*

- Click **Open (Enter)** to open the user image in a separate window.
- Click **Download** to save the user image to a location on your drive, or open the image in a separate window. (Once the image is on your drive you can edit it, etc).
- Click **Rename (F2)** to change the name of the user image.
- Click **Delete** (or press the **Delete** key on your keyboard) and a window will open and ask if you are sure you would like to delete the user image. Click

Yes to delete the image, **No** save and return to the tree.

- Click **New Folder (Ctrl + N)** to create a new user folder in the tree that you can name.
- Click **Add** to open a *Choose File* window and select an image from your drive that you would like to upload to the database.
- Click **Upload** to upload that image to the database (a green checkmark will appear next to the filename and it will become visible in the tree once the upload is complete). Your image is now a user image and categorized as such in the database.
- Click **Remove All** to erase all the filenames from the list at once (this will not remove the file from the database or tree if the files have uploaded successfully).
- Click the green checkmark to erase the filename from the list (this will not remove the file from the database or tree). Click outside the menu to close and view the file in the tree.

Uploading Images: To upload an image, click on the browse button (**...**) in the widget properties window to locate an image in the database or right-click on the User folder and click **Add** to open the *Choose File* window so you can upload a new image. Click **Upload** to upload your chosen image to the folder. Click outside the window to see the image listed in the tree under the folder.

Click **Use This Image** to upload your chosen image.

Click on an image name to display the image in the preview screen. You may either select images included in the library or upload additional images.

Table 10-3 lists all the menu icons and tools associated with System and User Images folders.

Icon	Description	Function
	Open (**Enter**)	Opens user image in separate window
	Download	Saves user image to a location on computer drive (when saved allows image editing, etc), or opens image in separate window
	Reload (**Ctrl** + **E**)	Reloads and refreshes the contents of window to show up changes recently made to image library
	Expand (Ctrl + →)	Expands folder to show its contents
	Collapse all (Ctrl + ←)	Collapses folder to hide its contents
	Rename(**F2**) Set the Index number for a background image to 0 (zero) and any image that will appear on top of the background image to a number greater than 0 (zero) so the correct stacking order will occur.	Changes name of user image
	Delete (**Delete** Key)	Deletes user image; click **Yes** on prompting window to delete image, or **No** to return to the tree
	Remove All	Erases all filenames from list at once, but will not remove file from the database or tree if it has been uploaded successfully. Click the green check mark to erase the filename from the list (this will not remove the file from the database or tree). Click outside the menu to close and view the file in the tree.

Table 10-3 *- Image Library Menu Icons and Tools*

Icon	Description	Function
	New Folder (Ctrl + N)	Creates a new user folder in the tree that can be named
	Add	Opens *Choose File* window where images from drive can be selected and uploaded to database
	Upload	Uploads image to database; a green check mark icon will appear next to the filename and image will become visible in the tree once upload is complete; once image is in database, it is categorized as user image and can then be used

Table 10-3 *- Image Library Menu Icons and Tools*

10.4.2.Running GS Screens

When you click a GS Screen from the Navigation Tree, you are taken to that GS Screen's page. Depending on how the GS Screen is set up, the appearance will vary. GS Screen pages normally consist of real-time values from the E2 controller and a graphical layout of the store's floor plan.

For Site Manager to display the current information in the controller and synchronize the updates from the controller configuration and the GS Screen, an Obtain Controller Information or equivalent activity will need to be run for the updates to the controller configuration to be visible. Note that if the configuration of the controller changes while a GS Screen is being viewed, the system will not pick up configuration changes between the time the application data inventory is being received.

10.4.2.1.Widget GS Right-Click Menu Options

Possible variations on the user-configurable right-click menu options that appear for widgets:

- **Control Temp**: current control temperature reading
- **Override**: override from this window. Checking this box opens an additional window that enables you to select **Fixed** or **Timed**. Click **OK** to save.
- **Modify**: enter a modification for the setpoint from this window by entering a value. Press **OK** to save or **Cancel**.
- **New Log**: if the point has been logged, log data will display (Date, Time, and Value).
- **Graph**: shows a graph of the logged data.
- **Display Log Graph**: shows log graph data if the point has been logged.
- **Point Properties**: takes you to the Point Properties page.
- **Graph Collection**: allows you to select points from GS Screens at run mode and graph them.

10.4.2.2.My System Home Page

Click the home page icon to return to the set GS system home page from anywhere within Site Manager. If a GS Screen has not been set as a system home page, a message will appear indicating that no home page has been set.

10.4.2.3.Setting a GS Screen as Your System Home Page

Located off the **My Info** drop-down menu, click **Set As System Home Page** to set a GS Screen as your home page and *overwrite any previously set GS Screen system home page*. A confirmation window appears: click **OK** to set the GS Screen as your new system home page (no undo) or close this window. After a GS Screen has been set as a system home page, it may be disabled by unchecking the **Enable System Home Page** checkbox in the **My Info** drop-down menu under **User Info**.

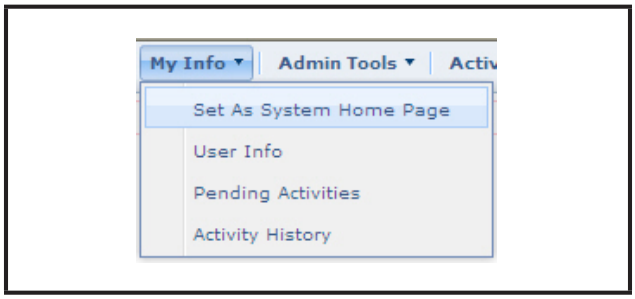


Figure 10-33 *- Setting a GS Screen as Your System Home Page*

10.4.2.4.Setting a GS Screen as Your Site Home Page

Setting a GS Screen as the Site Home Page makes the chosen GS Screen as the landing screen for a given site, control system, unit, application type, or application instance. To set the Site Home Page, while on a GS Screen, click the **GS Screens** menu and click **Properties**. On the *GS Screen Properties* screen, click the **Set as Site Home Page** checkbox then click **Save** to save the GS Screen as your site home page. To disable a site home page, uncheck the **Set as Site Home Page** checkbox then click **Save**.

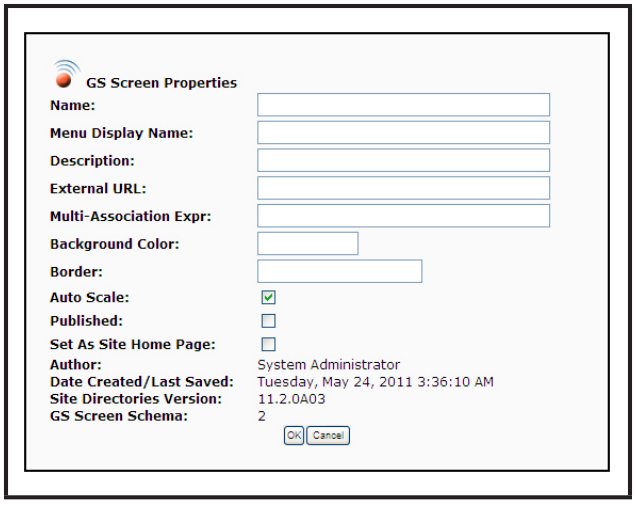


***Figure 10-34** - Setting a GS Screen as Your Site Home Page*

NOTE: The site home page is different from your system home page. You can only have one system home page and have multiple site home pages (i.e., one site home page for each of the following: site, control system, unit, application type, and application instance.)

10.4.2.5.Edit and Run Modes and Supported Browsers

When adding a GS Screen, you are automatically in Edit mode when you arrive at this page. Run mode shows GS Screens in use with real-time values displayed with no editing options. When you see the **Run** button (top right of this page), that indicates you are in Edit mode. This button will show Edit when you are in Run mode. Toggle the button to choose the desired mode. When in Run mode, right-click to bring up the Actions menu. After creating a GS Screen, toggle the button to Run mode to see the GS Screen operate in real time. IE 7 and above and the latest version of Firefox (off the Firefox Web site) are the supported browsers. (IE 6 is supported for viewing GS screens only.) Click the print icon to print the GS Screen in both Edit and Run modes.

10.4.2.6.Print Icon

While viewing a GS Screen (Run mode), click the print icon at the topmost right corner of the screen. The GS will be exported to a PDF. A new window will open and display the current GS. If a page has no GS associated, print will be disabled and the icon will not be visible on the page. Only the GS will be printed, all other screen elements will be excluded.

10.4.2.7.Logout Button

Click **Logout** button to log out of Site Manager and be returned to the *Login* page.

10.4.3.Widget Editor

When **Add GS Screen** is clicked from the navigation tree, a blank GS page opens with the Add Widgets palette:

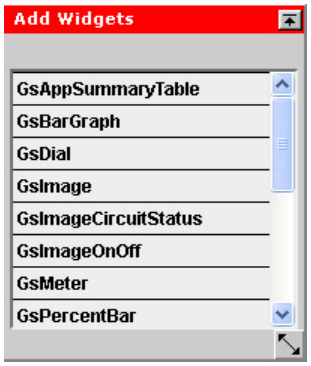


***Figure 10-35** - Widget Screen Editor*

Select the desired widget from the *Add Widgets* palette and use the right-click menu to edit widget properties. The Add Widgets palette can be moved to anywhere on the screen. Associate the desired points (create point references) to the widgets from the Properties menu.

10.4.3.1.Edit and Run Modes

Edit: If you are adding or creating a GS Screen, you are automatically in Edit mode when you first arrive at this page. The **Run** button indicates that you are in Edit mode. When the button reads **Edit**, you are in Run mode. Run mode shows the GS Screen operating in real-time. Toggle this button to go back and forth between modes. These buttons are displayed to

the left of the **Logout** button along with a GS Screen drop-down menu. IE 7 and above and Firefox 1.5 are the supported browsers. (IE 6 is supported for viewing GS screens only.)

Run: After a GS Screen has been created and you arrive at a saved GS Screen, you are automatically in Run mode. When in Run mode, right-click to bring up the Actions menu. After creating a GS Screen, toggle the button to Run mode to see the GS Screen operate. If you wish to edit a saved GS Screen, toggle this button to Edit mode so that you can make changes.

Hot Keys

- Control Z = undo
- Control Y = redo
- Control Alt Z = redo

10.4.4.Widget Parameters - Customization

When you customize a text-based widget, a variety of parameter symbols can be used. Text-based widgets can use replaceable parameters that are used to help generate the actual contents of the label when displayed within the widget. Any combination of regular text and replaceable parameters may be used any number of times within the **Label Text** field of a text widget or label property or the Captions and Labels of a GS Table widget. Each widget will have a possible reference to get a real time value from the specified controller. All references must be added manually, which differs from the preferred method of generating actual contents of the label.

For example, to display the temperature of point reference **0** within a Text widget, one might use the label text of **%{ label.temp}: ${0} ${0.engUnits}**. In which case the actual output in the widget would look something like **Temperature: 73.0 Degrees Fahrenheit** with the **73.0** temperature variable continuously changing to match the actual temperature reading of the point.

NOTE: The Properties menu options for widgets will differ depending on which type of widget you choose.

There are five (5) kinds of replaceable parameters:

- Point Status Information
- Point Reference Information
- Locale Resource Message Keys
- Screen Information
- Miscellaneous Parameters

10.4.4.1.Point Status Information

Point status information about a point reference that may change over time (points are continuously refreshed when a screen is being viewed, such as the point value or override status).

The format of this replaceable parameter is **${n.xxx}** where **n** is the reference index on the widget and **xxx** is the parameter being looked up. Note that if the parameter is omitted and only the index is supplied, it will default to the .val parameter as described in ***Table 10-4***.

NOTE: In this documentation, for clarity purposes only, a reference index of 0 is shown in all the examples, whereas normally this can indicate any reference on the widget (0,1,2, etc.) If a reference index is supplied for a reference on a widget that doesn't actually have that reference at that number, then nothing will be displayed for that replaceable parameter.

All data for this category is hookable. This means that when in Run Mode, when the data is clicked upon or the mouse hovers over the data displayed on the screen, a special *Actions Menu* popup will appear that will allow interaction with the point. The interaction is essentially the same as that allowed from the context menu of the Navigation Tree. Also, certain information will be highlighted with a different color depending on status. For example, a failure alarm status will automatically have a background color of red.

Table 10-4 displays **Point Status Information Parameter Symbols**:

Parameter Symbol	Definition
${0}	The most used replaceable parameter that shows a point value. It is a synonym for the **${0.val}** parameter.
${0.val}	The abbreviated value of the point. For analog point this will be a number: for example a temperature reading as 69 DF. Note that Engineering Units are not provided in this parameter for analog points. See **${0.eu}** and **${0.engUnits}**. For digital points this will be the short (abbreviated) Engineering Unit for the on or off or undefined state of the digital point.
${0.value}	The long form (non-abbreviated) value of the point. This is the same as ${0} and ${0.val} for analog points. For digital points this will be the long (non-abbreviated) Engineering Unit that corresponds to the value of the point.
${0.sample}	The raw sample value of the point. This is the same as ${0}, ${0.val} and ${0.value} for analog points. For digital points this will be -1 (for undefined), 0 (for off) or 1 (for ON).
${0.__polls}	Indicates the number of times the point has received a change from the server. This value is generally for diagnostic purposes.
${screen.menuDisplayName}	This is the screen menu display name. The name of the screen menu will display.
${0.alarmStatus}	The alarm status of the point. This will be a number from 0-3: 1 - fail 2 - alarm 3 - notice 0 - good
${0.ovrdValue}	When the point is in override, this is the override set value.
${0.ovrdTime}	When the point is in override and it is a TIMED override (as opposed to FIXED) this is the time that the override will end. Format is HH:MM.
${0.ovrdType}	If the point is in override, 0 indicates the point is in a FIXED override and 1 indicates that it is in a TIMED override

***Table 10-4** - Point Status Information Parameter Symbols*

Parameter Symbol	Definition
${0.ovrdStatus}	The override status of the point. This will be 0 or 1: 0 - normal 1 - override
${0.responseCode}	“Failure” code of the point. Any value other than 0 means there an issue retrieving point status data for this point: 0 - data OK 1 - data none 2 - pt fail 3 - pt inactive 4 - data missing 5 - data na (not available) 6 - notact (not active) 7 - no_val (not
${0.alarm}	An interpreted alarm status property that displays a status, text value rather than a numeric code: GOOD - black letters on a green background FAIL - white letters on a deep red background ALARM - white letters on a normal red background NOTICE - black letters on a yellow background
${0.ovrd}	Override status indicator: NORMAL - black letters on a white or transparent background OVERRIDE - black letters on a cyan background
${0.resp}	Interpreted response code: OK - black letters on a green background NO DATA - white letters on a deep red background FAIL - white letters on a deep red background INACTIVE - white letters on a deep red background MISSING - white letters on a deep red background N/A - white letters on a deep red background NOTACT - white letters on a deep red background (not active) NO VAL - white letters on a deep red background
${0.sample} === 1	Widget visibility parameter. This parameter makes the widget visible only when the point is ON.
${0} === 'On'	Widget visibility parameter. This parameter makes the widget visible only when the point is ON.
${0} < 32	Widget visibility parameter. This parameter makes the widget visible only when the value of the point is less than 32 (analog point).
${0.appInstPath}	The absolute path up to the application instance this point is in. This is the default link path of GsImageCircuitStatus and GsZoneCircuitStatus.
${0.appTypePath}	The absolute path up to the application type this point is in.
${0.unitPath}	The absolute path up to the unit this point is in.
${0.csPath}	The absolute path up to the control system this point is in.
${0.sitePath}	The absolute path up to the site this point is in.
${0.dirPath}	The absolute path up to the directory this point is in. (lowest directory level only)

Table 10-4 *- Point Status Information Parameter Symbols*

10.4.4.2.Point Reference Information

Information about the point that does not change over time, but is generally fixed over the life of the point. It can be useful when specific information about the point is needed that may not be known until run time.

These parameters follow the same format as Point Status Information with a few exceptions. The information is known immediately when the page loads, and does not change over time. The data is also not hookable as it is for Point Status Information.

Table 10-5 displays **Point Reference Information Parameter Symbols**:

Parameter Symbol	Definition
${0.id}	The database point ID. This is a number and is generally only useful for diagnostic purposes.
${0.path}	The path of point. It is a / (forward slash) separated list of names from where the page is loaded up to the point. For a screen at the Application Instance level this will be the same as the point name. For a screen at the application type level it will be the Application Instance name with the slash followed by the point name, etc.
${0.name}	The display name of the point reference as shown in the tree or context menu title.
${0.resolved}	True if the point was successfully resolved. "Resolved" in this sense means "found in the database." A point that wasn't successfully resolved when the screen was loaded may cause the widget to be invisible at run time.
${0.visible}	True if the point is visible.
${0.dataType}	A numeric code indicating the type of point (0=undefined/unknown, 1=analog, 2=digital, 3=system list). Note that the ${0.type} property can be used to display an interpretation of these numbers.
${0.eu}	The Engineering Units short abbreviated form. For example oF (for Degrees Fahrenheit). Note that for digital points, it will contain the ON Engineering Unit with a slash followed by the OFF Engineering Unit.
${0.engUnits}	The Engineering Units long non-abbreviated form. For example Degrees Fahrenheit. Note that for digital points, it will contain the ON Engineering Unit with a slash followed by the OFF Engineering Unit.
${0.logDataAvailable}	This can be TRUE or FALSE. TRUE indicates that there is log data in the database. FALSE indicates that there is no log data in the database. This is different from ${0.logAvailable}, which simply indicates that there is a log in the device but that there may not necessarily be any log data actually retrieved into the database for this point.
${0.logAvailable}	If this point has a log available, then it is TRUE.
${0.nativeControllerInfo}	Special parameter corresponding to a point property used for screens running in E2 systems. This is not generally useful for an Application screen.
${0.appsInstName}	The name of the application instance this point is in.
${0.appsTypeName}	The name of the application this point is in.
${0.unittName}	The name of the unit this point is in.
${0.csName}	The name of the control system this point is in.

Table 10-5 *- Point Reference Parameter Information Symbols*

Parameter Symbol	Definition
${0.siteName}	The name of the site this point is in.
${0.dirName}	The name of the directory this point is in. (lowest level directory only)
${0.type}	Interpreted Point Type. This is a way to see the type of point being viewed. The result of this will be one of the following: • String • Analog • Digital • System List *Note that a result of 'String' basically indicates that the point type is undefined or unknown.*

Table 10-5 *- Point Reference Parameter Information Symbols*

10.4.4.3.Locale Resource Message Keys

These parameters are used when text needs to be internationalized for local languages (localized). The actual text value to use to replace the value is looked up in a section within the page. The browser language is used to determine which language to use for looking up the key.

Examples:

Parameter Symbol	Definition
%{label.go.button}	For example, this might map to "Go!" on English systems, and "Vai!" in Portuguese.
%{message.greeting}	For example, this might map to "Hello" on English systems, and "Hola" in Spanish.

Table 10-6 *- Locale Resource Message Keys Parameters*

NOTE: For actual configuration of the resources section in the screen requires a change to the screen JSON.

10.4.4.4.Screen Information Parameters

Parameters related to the screen. Some of these can be accessed from the screen properties dialog.

Parameter Symbol	Definition
${screen.name}	The screen name
${screen.description}	The description of the screen
${screen.refName}	The name of the reference from which the screen was loaded/added.
${screen.filename}	The filename for where the screen is stored on the server
${screen.system}	True if this is a system screen, false if it is a user screen
${screen.treeLevel}	The Navigation Tree level that this screen was added at or loaded from and designed for. A number that is one of: 0:DIRECTORY 1:SITE 2:CONTROL_SYSTEM 3:UNIT 4:APPLICATION_TYPE 5:APPLICATION_INSTANCE 6:POINT

Table 10-7 *- Screen Information Parameters*

Parameter Symbol	Definition
${screen.published}	The published flag, true if this screen is published (and thus will be seen by all users in the tree when associated) false if unpublished (and thus will only be seen in the tree by the user that created this screen when associated)
${screen.creatorUserId}	The database primary key for the user that created this screen. a number.
${screen.author}	Textual description of who wrote this screen. This will be the UserBean.first_name and UserBean.last_name in most cases. For system screens, it will usually be "System".
${screen.version}	Site Manager version that this screen was created in/ is valid for.
${screen.schema}	GS Screen schema that this screen was created in/ is valid for.
${screen.externalUrl}	External URL for this screen if any defined.

Table 10-7 *- Screen Information Parameters*

Point References for Image Circuit Status and Zone Circuit Status Widgets

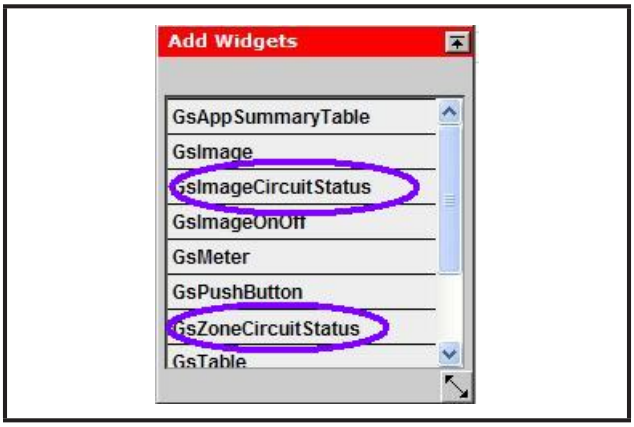


Figure 10-36 *- GsImageCircuitStatus and GsZoneCircuitStatus Menu from the Add Widget Palette*

For both the *Image Circuit Status* and *Zone Circuit Status* widgets, only the Alarm Out and Defrost points can be associated with these two widgets in this order:

1. 1st point reference is ALARM OUT
2. 2nd point reference is DEFROST

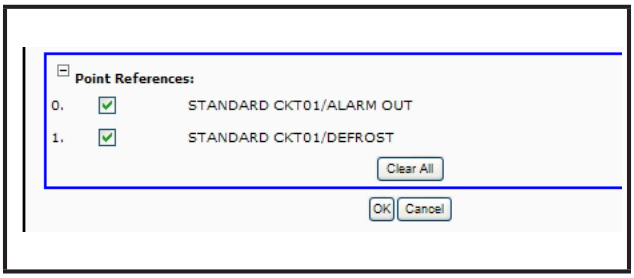


Figure 10-37 *- Point References Section*

The *Image Circuit Status* and *Zone Circuit Status* widgets have color indicators that will change based on the point being in alarm or defrost. For example, Zone Circuit Status can be used to cover a zone or area on the floor plan. The colors will change depending on the information received from the controller regarding alarm and defrost states. Upload and use any image to show the state of the point.

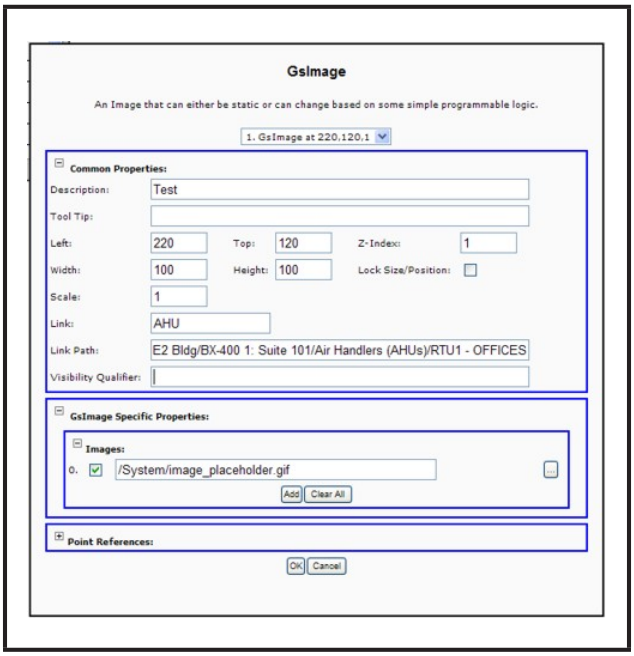


Figure 10-38 *- Point References Section*

The *GsImageCircuitStatus* and *GsZoneCircuitStatus* widgets have a default **Link** of **Standard Circuits Graphical Status** and a default **Link Path** of **${0.appInstPath}**.

This means that when *GsImageCircuitStatus* and *GsZoneCircuitStatus* widget types are newly added, when clicked, they will go to the most obvious place by default (the Standard Circuits graphical status screen for the application on the first point reference on the widget.)

Text and Table Widgets

For text and table widgets, some of the text features you will see on-screen are listed in the **Text Feature** column. The options you can enter manually are listed in the **Options** column.

Text Feature	Options
Text Alignment	center, left, right
Font Size	9px, 10px, 12px
Font Family	times, courier, arial
Font Variant	normal, small caps
Font Style	italic, normal, oblique
Font Weight	normal, bold, bolder, lighter, or enter a numeric value from 100 - 900 (normal = 100, bold = 700)
Header Color	enter a color value in this field: blue, green, etc.
Header Background Color	enter a color value in this field to set the color of the background header: blue, green, d0d0d0, etc.
Header Border	enter a pixel size and color value in this field to specify the header border attributes, for example: 2px solid blue
Header Inside Border	enter a pixel size and color value in this field to specify the header inside border attributes, for example: 1px solid black
Row Header	specify the values to appear in the row header separated by commas, for example: Unit, Application, Point, Type, Value

***Table 10-8** - Text and Table Widgets*

NOTE: Use cascading style sheet (CSS) formats and rules for text and table widget properties. For more information on CSS formats, refer to these sites: http://www.javascript-kit.com/dhtmltutors/css5.shtml and/or http://www.htmlhelp.com/reference/css/properties.html

Choose images to build GS Screens from the Image Library by clicking the browse icon (**...**) and choosing from the directories. You can also create your own directories.

The GS Table widget has a "Column Widths" feature so that the width of each column can be set manually. This list is a comma-separated list of pixel widths for each column. Each column can have its visibility controlled if the header item for that column has a reference to a point reference and that point reference is not visible.

GsMeter

The GsMeter is a vertical scale widget that can display a point value (usually a temperature or pressure reading) by referencing or associating the widget with a point in the Navigation tree. The gauge indicator moves up or down as the value of the point being referenced changes in real time. Click on **GsMeter** from the **Add Widgets** palette to add the widget to your GS Screen. Right-click the widget and click **Properties** to change the widget's properties (for example, image dimensions, gauge color, scale values, and more). *Note that if the widget is associated with more than one point in the Navigation tree, only the primary point reference value will be displayed.*

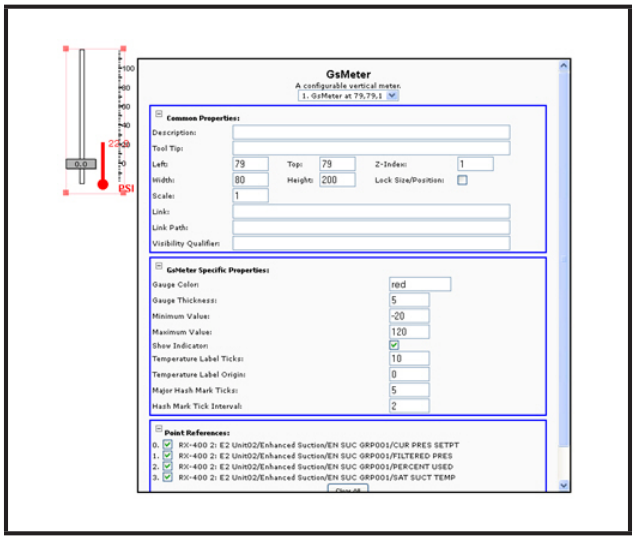


***Figure 10-39** - GsMeter Widget*

Property	Description
Gauge Color	The color of the gauge indicator. The default color is red. To change the color, enter the name of the color into the field.
Gauge Thickness	The thickness of the indicator in pixels.
Minimum Value	The lowest possible value that the scale can display (at what number the scale starts).
Maximum Value	The highest possible value that the scale can display (at what number the scale ends.)
Show Indicator	Enable the checkbox to show the actual point value on the indicator, or disable to hide the value.
Temperature Label Ticks	The number of tick marks between two major tick-mark labels on the meter.
Temperature Label Origin	With what value the scale starts to show the number.
Major Hash Mark Ticks	The number of ticks a mark stands for.
Hash Mark Tick Interval	The number of units a tick stands for.

Table 10-9 *- GsMeter Specific Properties*

GsDial

Similar to the GsMeter, the GsDial widget displays real-time point value by associating the widget or referencing it to a point in the Navigation tree. This widget has a pointer (indicator) that moves and points to a value in the scale depending on the current value of the widget's point reference. To add this widget to a GS Screen, click **GsDial** on the **Add Widgets** palette. To modify the widget's properties, right-click the widget and click **Properties**.

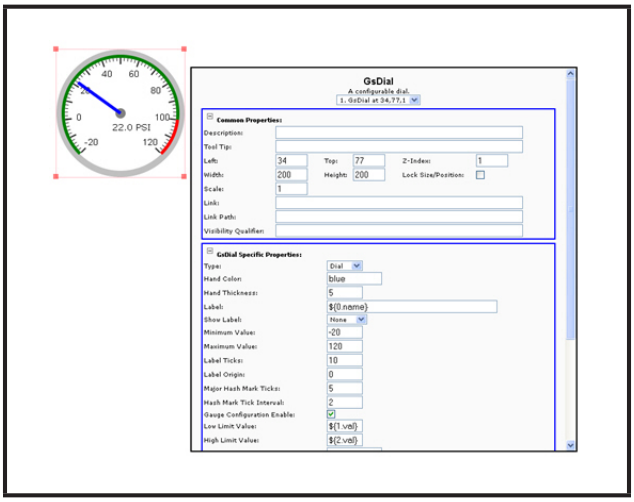


Figure 10-40 *- GsDial Widget*

Property	Description
Type	The kind of GsDial to use (**Dial** or **Meter**).
Hand Color	The color of the gauge indicator or hand. The default color is blue. To change the color, enter the name of the color into the field.
Hand Thickness	The thickness of the indicator in pixels.
Label	The name or description that will be displayed for the widget. This defaults to **${0.name}**, which is the name of the point as it appears in the Navigation tree or context menu title.
Show Label	Location on the widget where the label will be displayed.
Minimum Value	The lowest possible value that the scale can display (at what number the scale starts).
Maximum Value	The highest possible value that the scale can display (at what number the scale ends).
Label Ticks	The number of tick marks between two major tick-mark labels on the dial.

Table 10-10 *- GsDial Specific Properties*

Property	Description
Label Origin	With what value the scale starts to show the number.
Major Hash Mark Ticks	The number of ticks each mark stands for.
Hash Mark Tick Interval	The number of units a tick stands for.
Gauge Configuration Enable	Enable the checkbox to enable additional gauge configuration.
Low Limit Value	Ceiling/Upper limit value for the low limit range.
High Limit Value	Starting/Lower limit value for the high limit range.
Low Limit Status Color	Color that represents the low limit range.
Normal Status Color	Color that represents the normal value range.
High Limit Status Color	Color that represents the high limit range.

Table 10-10 *- GsDial Specific Properties*

GsPercentBar

The GsPercentBar widget displays point reference value in percentage. To add this widget to a GS Screen, click **GsPercentBar** on the **Add Widget** palette. To edit the widget's properties, right-click the widget and click **Properties**. *Note that if the widget is associated with more than one point in the Navigation tree, only the primary point reference value will be displayed.*

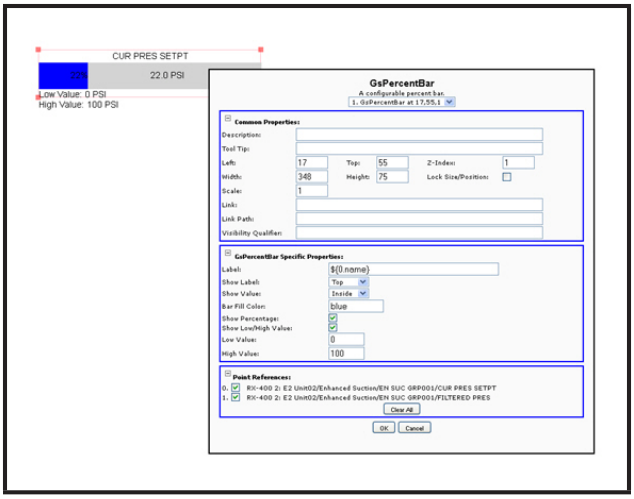


Figure 10-41 *- GsPercentBar*

Property	Description
Label	The name or description that will be displayed for the widget. This defaults to **${0.name}**, which is the name of the point as it appears in the Navigation tree or context menu title.
Show Label	Location on the widget where the label will be displayed (Top, Bottom, Left, or Right).
Show Value	Allows you to select whether to display the actual value of the point reference and measurement unit or not, and lets you select where to display the value on the widget.
Bar Fill Color	The color of the percentage bar. The default color is blue. To change the color, enter the name of the color into the field.
Show Percentage	Enable the checkbox to show the percentage number value.
Show Low/High Value	Enable the checkbox to show the low and high values at the bottom of the widget.
Low Value	The low reference point value.
High Value	The high reference point value.

Table 10-11 *- GsPercentBar Specific Properties*

GsBarGraph

The GsBarGraph widget uses bars as a representation of point reference status. Each colored bar on the graph along the X-axis represents a point reference and the height of the bars corresponds to the point value on the Y-axis. High and low limits are indicated by the lines across the graph. Click **GsBarGraph** on the

Add Widget palette to add this widget to your GS screen. To edit the widget's properties, right-click the widget and click **Properties**.

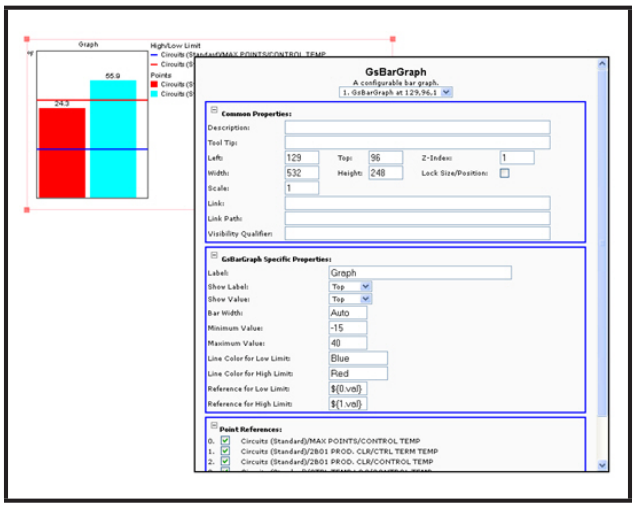


Figure 10-42 *- GsBarGraph*

Property	Description
Label	The name or description that will appear on the widget. The default setting is **Graph**.
Show Label	Location on the widget where the label will be displayed.
Show Value	Select whether to display the actual values or not, and lets you select where to display values on the widget.
Bar Width	Width of the bars in pixels. The default value is **Auto**, which means the bar width will adjust automatically based on the number of bars displayed.
Minimum Value	The lowest number that the Y-axis can display if cannot be determined automatically from setpoint values.
Maximum Value	The highest number that the Y-axis can display if cannot be determined automatically from setpoint values.
Line Color for Low Limit	The line color of the low limit across the graph from left to right. Default color is blue.

Table 10-12 *- GsBarGraph Specific Properties*

Property	Description
Line Color for High Limit	The line color of the high limit across the graph from left to right. Default color is red.
Reference for Low Limit	Low limit reference point on the Y-axis.
Reference for High Limit	High limit reference point on the Y-axis.

Table 10-12 *- GsBarGraph Specific Properties*

Use the legend on the right-hand side of the graph to reference the points associated with each bar.

GsSlider

View and change the setpoint setting of a point reference using the GsSlider widget. The GsSlider widget has a slider control/bar that can be moved up and down to adjust setpoint. To add this widget to a GS Screen, click **GsSlider** on the **Add Widget** palette. To edit the widget's properties, right-click the widget and click **Properties**.

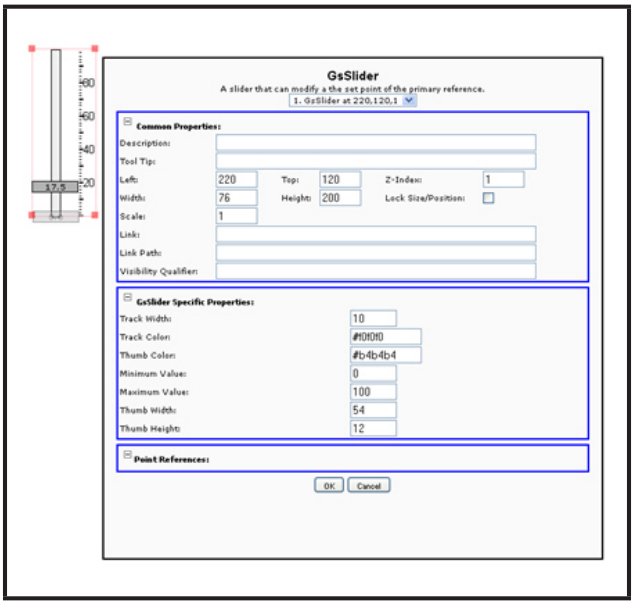


Figure 10-43 *- GsSlider*

Property	Description
Track Width	Width of the slider track in pixels.
Track Color	The color of the slider track. To change the track's color, enter the name of the color into the field.
Thumb Color	The color of the slider control/bar. To change the color, enter the name of the color into the field.
Minimum Value	The lowest possible value that the widget can display.
Maximum Value	The highest possible value that the widget can display.
Thumb Width	Width of the slider control/bar in pixels.
Thumb Height	Height of the slider control/bar in pixels.

Table 10-13 *- GsSlider Specific Properties*

To change the value of a setpoint, click the slider bar and drag it up or down to the new setpoint. The new setpoint value will be displayed on the widget.

Zone Widgets

Zone widgets allow you to create a new GS screen based on a portion of another screen.

To use this feature, add a new GSZone widget, move and size it to cover the area that the new screen should be based on, and then on the widget's right-click menu, click **Convert to Sub-Screen**.

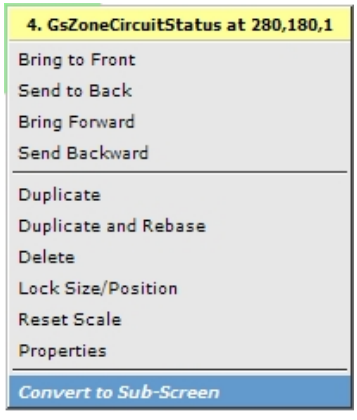


Figure 10-44 *- Convert to Sub-Screen*

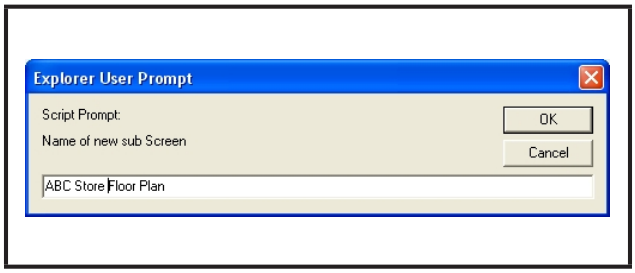


Figure 10-45 *- Naming the Sub-Screen*

Figure 10-46 *- Saving the Sub-Screen*

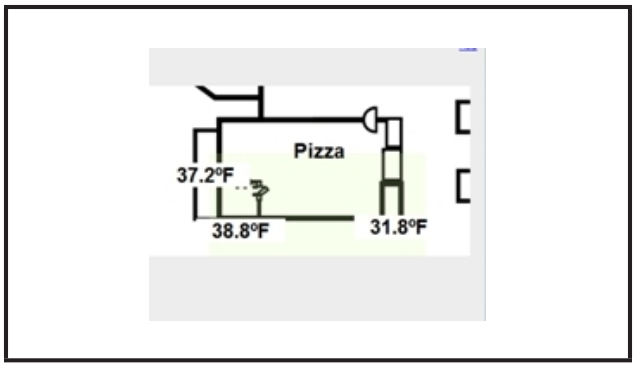


Figure 10-47 *- New Sub-Screen*

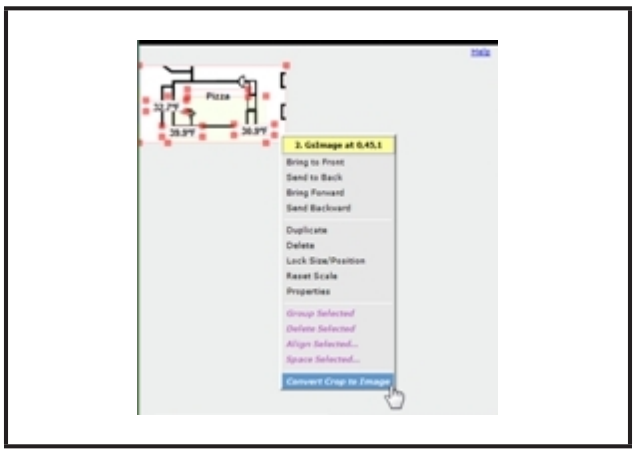


Figure 10-48 *- Convert Crop to Image*

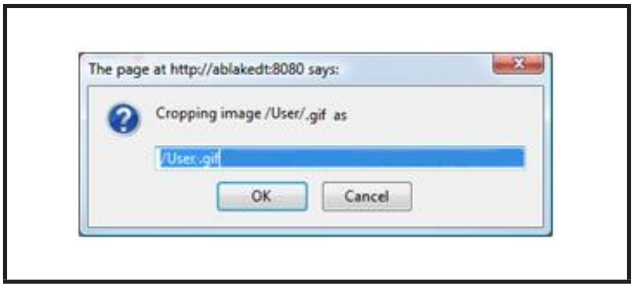


Figure 10-49 *- Rename Image*

10.4.4.5.Miscellaneous Parameters

A general purpose replaceable parameter.

${br} - Used to insert a line break within the text.

10.4.5.Summary Screen Widget

The Summary Screen widget *GsAppSummaryTable* will be available on the GS Screen at the control system, unit, and application type levels on the tree. It will not appear on the widget menu for screens at directory, site, and application instance levels.

1. Click on the **Summary Screen** widget from the **Add Widgets** menu:

Figure 10-50 *- GsAppSummaryTable Menu from Add Widget Palette*

2. This will add the widget to the GS Screen and will look similar to the following image:

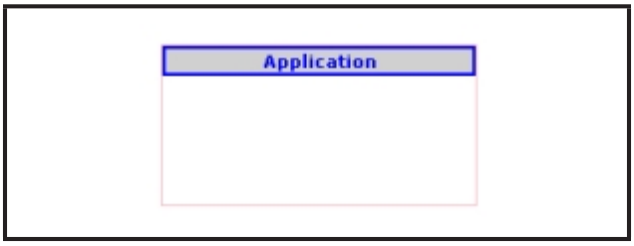


Figure 10-51 *- Adding Widget to GS Screen*

Points to be associated with this widget can be pre-selected before selecting the widget, similar to the behavior of the other widgets.

3. Right-click and select properties on the widget to view and edit the properties of the widget:

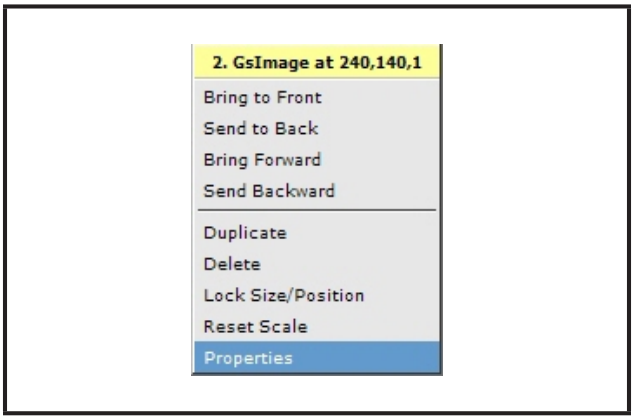


Figure 10-52 *- Properties Menu from Widget Screen*

Note that the widget will not show any application rows until an **Application Type** is selected from the *Properties* page. An exception to this rule exists when the widget is on a GS screen at the application type level in the tree.

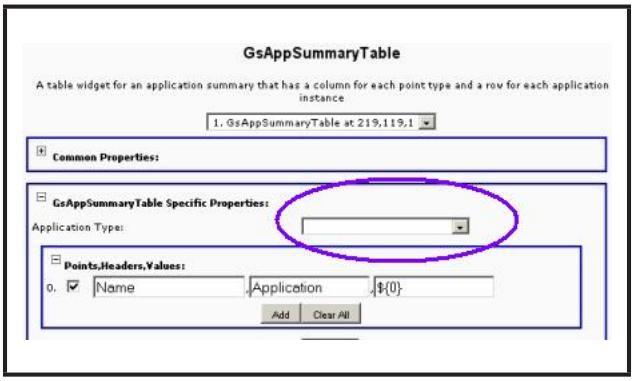


Figure 10-53 *- GsAppSummaryTable Screen*

10.4.5.1.Widget Behavior

- The **Application Type** is auto-selected for the widget - there is only one valid application type if the GS screen is at that level of the tree.
- If the widget is on a GS screen at the control system or unit level, you must select an **Application Type** on the *Properties* page.
- The widget cannot be saved without selecting an application type.
- If the widget is located at the unit level, the widget will loop through ALL applications across multiple control systems and combine them into a single list of all applications.
- Application rows will be generated for all corresponding application types found for the specified application type where the GS screen is located. This can span multiple units if the GS screen is at control system level.
- If there are no applications found for the specified application type, no rows will be shown in the widget.
- The widget may be resized by selecting the widget and dragging the corners to make it smaller or larger.
- Depending on the amount of data being displayed in the widget, scroll bars will be available if the widget window is smaller than the number of rows and columns.
- Unlike other widgets, there is no **Point Reference** section (usually located at the bottom of the page) on the *Properties* page for this widget:

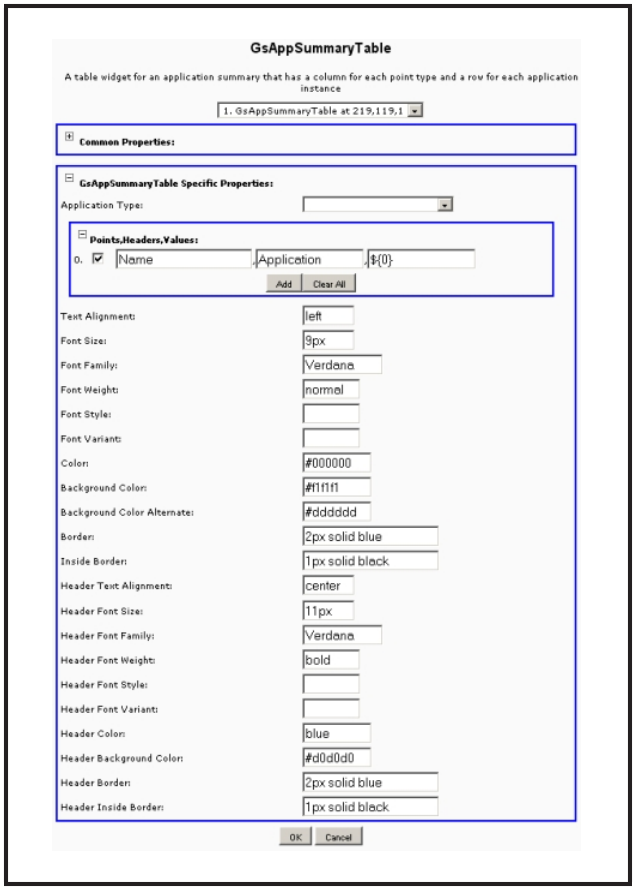


***Figure 10-54** - GsAppSummaryTable Page*

10.4.5.2.Properties Menu

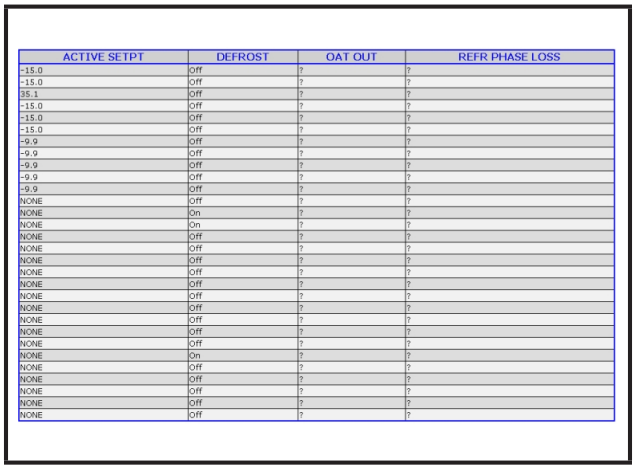
- If the screen was created at the control system or unit level, the **Application Type** must be selected (***Figure 10-53***).
- A list of all common application types will be listed.
- If the application type is not selected, a warning message will appear as a reminder that an application type must be selected.
- If the GS screen was created at the application type level, **Application Type** will be pre-filled.
- If the widget is located at the control system level, the widget will loop through all applications across multiple units in the control system and combine them into a single list of all applications for the control system.
- Information can be manually entered here checkboxes can be selected from the main tree to fill in points automatically.
- Contrary to how the tree normally works, de-select-

ing a checkbox will not remove the points.

- Each row represents a column in the summary table.

10.4.5.3.Points, Headers, Values

- The first text box is the name of the point (**Points**).
- The second text box is the column header (**Headers**).
- Currently it is defaulted to the name of the point, but can be changed.
- The third text box will be the value of the point (**Values**).
- If a GS screen is created at the application type level and the *GsAppSummaryTable* widget is selected, points should only be added for that application to the widget.
- Points may be selected from the tree prior to selecting the widget and the points will be pre-filled in the widget properties.
- If invalid points are selected, the columns will appear, but the data will not. A **?** will appear for all points that cannot be resolved, similar to the following image under **OAT OUT** and **REFR PHASE LOSS** columns:



ACTIVE SETPT	DEFROST	OAT OUT	REFR PHASE LOSS
-15.0	Off	?	?
-15.0	Off	?	?
35.1	Off	?	?
-15.0	Off	?	?
-15.0	Off	?	?
-15.0	Off	?	?
-9.9	Off	?	?
-9.9	Off	?	?
-9.9	Off	?	?
-9.9	Off	?	?
-9.9	Off	?	?
NONE	Off	?	?
NONE	On	?	?
NONE	On	?	?
NONE	Off	?	?
NONE	Off	?	?
NONE	Off	?	?
NONE	Off	?	?
NONE	Off	?	?
NONE	Off	?	?
NONE	Off	?	?
NONE	Off	?	?
NONE	Off	?	?
NONE	Off	?	?
NONE	Off	?	?
NONE	On	?	?
NONE	Off	?	?
NONE	Off	?	?
NONE	Off	?	?
NONE	Off	?	?

Figure 10-55 *- Widget Summary Matrix*

- If no points are valid for the application type, the widget will not appear during *Run* mode.
- The Header and Value may contain any replaceable parameters just like GsText and GsTable based widgets, but the point reference index must always be **0** in each column, and the system automatically fills in the proper point index at *Run* time.
- If using replaceable parameters for the header columns, the point data used will be from the points found the first row found (this might be useful for specifying the unit name, control system name, and more as part of a column header.)
- The **%** notation can be used to localize any resources used here.
- Right-clicking or hovering on a point will display the point context menu.
- In order to view the context menu, hover over the value, not the row.
- The menu displayed will be based on the point selected.
- From the application summary widget, you can left-click on a specific row and Site Manager will automatically bring up the specific application GS screen for the application instance (for example, the RTU graphical status screen).
- Application names will be in the same sorted order as found the navigation tree.

Widget Type:

GSPushButtonOverride

Note that the GSPushButtonOverride widget type provides a constant override or will cancel the override on the referenced point.

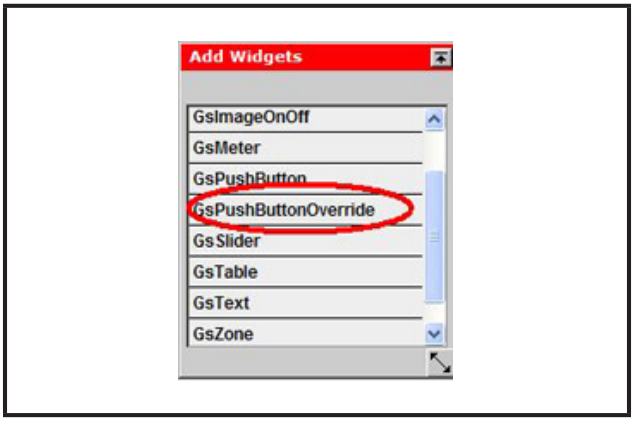


Figure 10-56 *- Widget Type - GSPushButtonOverride*

When the GS screen is created, properties will be configured for the point to be used for the override, as well as the value being overridden to, and also the length of time to override. The images can be changed to “On” and “Off.” At screen runtime, selecting the image or button will initiate an override of the selected point all the way to the controller. Note also that the status of the override widget will change when the state is read from the controller.

11 Revision History

This chapter contains important supplementary information related to the latest specified release that may not appear in the main product documentation. We recommend that you read this chapter in its entirety.

11.1. Site Manager Version 13.2

What's New:

- Live Advisory View – Improved readability of View, and usability of Refresh.
- Live Advisory View – User Preferences can now be saved.
- Setpoint Broadcast – Broadcast additional HVAC zone points.
- Setpoint Broadcast – Performance improvements.
- GS Screen – Ability to create new system Site Summary screen.
- Firmware Update – Improved ability to transfer and apply Firmware to controllers.
- GS Screens – System GS Screen can be saved as a user screen.
- Edit Control System – IP address safeguard for uniqueness.
- Enterprise Summary – New Enterprise Summary screen that shows E2 software versions, last backups, and IP addresses by site.
- Add Directory – Supports 10 digit Zip/Postal Code.
- 163 other minor issues fixed.

Key Fixes:

- Log graph – Now correctly displays data for "Enhanced Suction."
- Pending Activities – Fixed fatal error on attempt to view Pending Activities.
- Live Advisory – Urgency level buttons do not affect any other filters on the page.
- GS Screen – Can now save a system GS as a custom GS, then set that custom GS as site home.
- Live Advisory – View Live Advisory –Column width is not changed to default when Restore Default Format button is clicked only once.
- GS Screen - Site Summary – Unit Name in GsAppSummaryTable displays correctly.
- GS Screen - Site Summary – Point Name under Power Monitoring is now correct in GsAppSummaryTable widgets.
- Live Advisory – Export Live Advisory "(rtn)" now visible for advisory Type in exported Live Advisories files.
- Setpoint Broadcast - App Setpoint Group – "DOOR SWITCH" input now updates in controller after executing.
- Setpoint Broadcast – Broadcast "Day Sched in" now updating correctly for Lighting Application Instance.

Hosted Customer Support:

Improved Hosted Environment Support. For those customers who are hosted by Emerson improved "backend" data center, server and application monitoring systems have been implemented that allow better ability to monitor and administrate the environment and to provide additional information on root cause of issues.

Known Issues:

- Chinese localization issue with help.
- Edit Application with E1 may not display correctly with certain applications.
- Licensing issue with Windows 7.
- No support for backup, restore and logs on E1 controllers from Application Type and Application Instance.

Minimum Hardware Requirement Changes:

A new server minimum recommendation has been established for those customers who host Site Manager themselves. A minimum of a 2 CPU 2.5 ghz Xeon or iCore class (or equivalent) and 4 GB memory with 50 GB disk space is recommended. For better performance with more than 200 sites connected or frequent log retrieval a 4 CPU configuration is recommended.

Supported Databases:

- Microsoft SQL Server 2005 SP1 - SP4 (32 and 64 bit)
- Microsoft SQL Server 2008 R2 SP1 (32 and 64 bit)

Please note that Oracle Database and MySQL Databases are NOT supported.

Supported Application Server Platforms (Microsoft Windows only):

- Microsoft Windows Server 2008 R2 Enterprise
- Windows Server 2003 SP2 - Standard Edition, Standard x64 Edition, Enterprise Edition

Supported Browsers:

- IE 8 and above
- The latest version of Firefox
  (available on the Mozilla Web site:
  http://www.mozilla.org/en-US/firefox/new/)

Appendix A: Group Privileges, Descriptions, and Protocol Access Levels

Table A-1 contains the privileges that can be assigned to a Group from the *Group Configuration* page and their corresponding descriptions. A privilege is an activity that can be performed in Site Manager.

Privilege	Description
My User Info	Allows user to change their password and set personal system settings.
My Pending Activities	Allows user to view activities that are waiting to start or in progress that have been initiated by the user.
My Pending Activities for Tree Item	Allows user to view activities from a tree node that are waiting to start or in progress that have been initiated by the user.
My Activity History	Allows user to view activities initiated by the user.
My Activity History for Tree Item	Allows user to view activities from a tree node that have been initiated by the user.
Admin Pending Activities	Allows user to view activities that are waiting to start or in progress that have been initiated by all users of the system.
Admin Pending Activities for Tree Item	Allows user to view activities from a tree node that are waiting to start or in progress that have been initiated by all users of the system.
Admin Activity History	Allows user to view activities initiated by all users.
Admin Activity History for Tree Item	Allows user to view activities from a tree node initiated by all users of the system.
Add User	Allows user to add users to the system.
Edit User	Allows user to edit users of the system.
Delete User	Allows users to delete users from the system.
Add Group	Allows user to add groups and assign privileges as well as set site and directory permissions for each group. Users may perform activities depending on what group type they are assigned to.
Edit Group	Allows user to edit groups by adding or removing privileges and change their site and directory permissions.
Delete Group	Allows user to delete existing groups.
Add Service Provider	Allows user to add service providers to the system.
Edit Service Provider	Allows user to edit service providers in the system.
Delete Service Provider	Allows user to delete service providers in the system.
Service Provider Properties	Allows user to view detailed information about service providers.
Add Scheduled Activities	Allows user to add scheduled activities to the system. Activities, such as backups, and retrieve logs can be scheduled to run based on a schedule set by the user. Users will be allowed to create user schedules and not system schedules.
View All Scheduled Activities	Allows user to view all configured scheduled activities created by all users of the system.
Edit My Scheduled Activities	Allows user to view and edit only scheduled activities they created.

Table A-1 *- Privileges and Descriptions*

Privilege	Description
Edit Any Scheduled Activities	Allows user to view and edit all scheduled activities that were created by all users of the system.
Delete My Scheduled Activities	Allows user to delete only scheduled activities they created.
Delete Any Scheduled Activities	Allows user to delete all scheduled activities that were created by all users of the system.
View Directory Properties	Allows user to view information that is related to a directory, including sub-directories, sites, activities, and configuration information.
Add Directory	Allows user to add directories to the system. Directories are the top-most level of the navigation tree.
Edit Directory	Allows user to edit existing directories in the system.
Delete Directory	Allows user to delete existing directories from the system. Deleting a directory will delete everything within the directory.
View Site Properties	Allows user to view information that is related to a site, including sub-directories, activities, and configuration information.
Add Site	Allows user to add sites to the system. Sites are at the second level of the navigation tree.
Edit Site	Allows user to edit existing sites in the system.
Delete Site	Allows user to delete existing sites from the system.
View Control System Properties	Allows user to view information related to the control system including units, activities that can be performed, configurations and details.
Add Control System	Allows user to add control systems to the system. Control systems are at the third level of the navigation tree.
Edit Control System	Allows users to edit existing control systems in the system.
Delete Control System	Allows users to delete existing control system from the system.
View Unit Properties	Allows user to view information related to the unit including application, activities, configurations and details.
View Application Type Properties	Allows user to view details about the application and make changes to the application.
View Application Instance Properties	Allows user to view the number of points in the application (if available) that have been programmed inside a controller.
View Point Properties	Allows user to view details about controller points, graph points, retrieve logs, and make changes.
Display Log Graph	Allows user to view graphical representation of the data.
Watch Points	Allows user to select multiple points from the tree and view the real-time values for those points.
GS Screen Edit	Allows user to modify graphical status screens.
GS Set Home Page	Allows user to set a graphical status screen as the first page they see when they log into the system.
Add GS Screen	Allows user to create graphical status screens.
Import GS Screen	Allows user to bring graphical status screens into the system that were created on another system or by another user of the system.
Associate GS Screen	Allows user to connect a graphical status screen to a node on the tree.

Table A-1 *- Privileges and Descriptions*

Privilege	Description
Advisory Receiver Commissioning	Allows the user to set advisory configurations such as connection test time and advisory filter priorities for alarms, failures, and notices.
Firmware Package Management	Allows user to manage firmware files.
View Historical Advisories	Allows user to view historical advisories (alarms, fails, notices, warnings) from the database.
Acknowledge Live Advisories	Allows user to Acknowledge Live Advisories.
Clear Live Advisories	Allows user to Clear Live Advisories.
Reset Live Advisories	Allows user to Reset Live Advisories.
Forward Advisories	Allows user to forward advisories to email addresses and/or users in the system.
Connection Verification Report	Allows user to view inbound connections to determine which sites in the navigation tree are in good communication status and which sites are not.
Purge Inbound Connection Records	Allows user to set purge configurations for inbound connection records.
Feature Activation	Allows user to view the license page as well as add feature activation keys.
Help Contents	Allows user to view the system help including the help provided on each page.
Add Private List	Allows user to create a list of points that will only be visible to them.
Edit Private List	Allows user to edit a list of points only visible to them that they created.
Delete Private List	Allows user to delete a list of points that the user created.
Add Public List	Allows user to create a list of points that will be visible to all users of the system.
Edit Public List	Allows user to modify any public list of points that was created.
Delete Public List	Allows user to remove a list of points that was created and will no longer be visible to all users of the system.
Activity History Configuration	Allows user to purge activity history in the database.
Admin Send Email	Send Email
Export Setpoint File	Ability to download Setpoint File from the controller.
Obtain Controller Information	Retrieves all information possible for current level.
Backup	Back up one or more controllers at a given level.
Controller Logs and Stats	Retrieves log data for various diagnostic information types from the controller.
Terminal Mode	Shows the native UI for the current controller.
Retrieve Logs	Retrieves Point Logs for current level requested.
Configure Advisory Purge	Allows user to choose to store a certain number of advisories in the system for the tree node selected.
Utility	Utility Group
Upload Description File	Ability to send a Description File to a controller.
Remove Description File	Ability to remove Description File from a controller.
Firmware Transfer	Transfer firmware to a set of controllers.
Restore	Restore setpoints to a controller.
Configure Advisory Snooze	Allows user to set a snooze duration for the selected node in the tree.

Table A-1 *- Privileges and Descriptions*

Privilege	Description
Firmware Apply	Applies the Firmware to a controller.
Add Application	Adds one or more applications to a controller.
Refresh Point List	Retrieves the listing of points for the current level.
Configure Unit Backup	Allows user to choose to store a certain number of backups in the system for the unit selected.
Edit Application Instance	Edit an application instance which will be saved on a controller.
Get Live Advisories	Allows user to use the retrieve advisories for the controller.
Manual Defrost	Allows user to start a defrost for a freezer or refrigerated case that is outside its normally scheduled routine.
Setpoint Broadcast	Allows user to use Setpoint Broadcast functionality.
Delete Application Instance	Allows user to delete an application instance from a controller.
Configure Log Purge	Allows user to configure purging for point logs.

Table A-1 *- Privileges and Descriptions*

Table A-2 and ***Table A-3*** list the privileges (activities) that can be assigned to a Group at the Group configuration level and the minimum Protocol Access Level required to run the activity.

Activity	Minimum Protocol Access Level needed to run this Activity
Watch Points	100
Export Setpoint File	300
Modify Point	300
Obtain Controller Information	100
Backup	200
Controller Logs and Stats	100
Terminal Mode	100
Retrieve Logs	100
Upload Description File	400
Remove Description File	400
Firmware Transfer	400
Restore	300
Override	300
Refresh Units	100
Refresh Applications	100
Firmware Apply	400
Add Application	300
Refresh Point List	100
Edit Application Instance	300
Get Live Advisories	100

Table A-2 *- Privileges Vs. E2 Protocol*

Activity	Minimum Protocol Access Level needed to run this Activity
Manual Defrost	400
Setpoint Broadcast	400
Delete Application Instance	300

***Table A-2** - Privileges Vs. E2 Protocol*

Activity	Minimum Protocol Access Level needed to run this Activity
Watch Points	100
Retrieve Logs	100
Refresh Units	100
Refresh Applications	100
Refresh Point List	100
Terminal Mode (HttpSessionProxyActivity)	100

***Table A-3** - Privileges Vs. XWEB Server Protocol*

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